

HARDWARE MANUAL [CONNECTION]

GOT-F900 SERIES GRAPHIC OPERATION TERMINAL

Covered models

F920GOT-K
F920GOT-BBD-K-E
F920GOT-BBD5-K-E

F930GOT(-K)
F930GOT-BWD-E
F930GOT-BBD-K-E

F940GOT
F940WGOT-TWD-E
F940GOT-SWD-E/-LWD-E

Handy GOT
F940GOT-SBD-H-E/-LBD-H-E
F943GOT-SBD-H-E/-LBD-H-E
F940GOT-SBD-RH-E/-LBD-RH-E
F943GOT-SBD-RH-E/-LBD-RH-E

Screen creation software

GT Designer2
(SW*D5C-GTD2-E)

GT Designer
(SW*D5C-GOTR-PACKE)
FX-PCS-DU/WIN-E

GOT-F900

Foreword

- This manual contains text, diagrams and explanations which will guide the reader in the correct installation and operation of the GOT-F900 SERIES GRAPHIC OPERATION TERMINAL. It should be read and understood before attempting to install or use the unit.
- Further information can be found in the GOT-F900 Operation Manual, F920GOT-K Installation Manual, F930GOT Installation Manual, F930GOT-K Installation Manual, F940GOT Installation Manual, F940WGOT Installation Manual.
- If in doubt at any stage of the installation of GOT-F900 SERIES GRAPHIC OPERATION TERMINAL always consult a professional electrical engineer who is qualified and trained to the local and national standards which apply to the installation site.
- If in doubt about the operation or use of GOT-F900 SERIES GRAPHIC OPERATION TERMINAL please consult the nearest Mitsubishi Electric distributor.
- This manual is subject to change without notice.

GOT-F900 SERIES GRAPHIC OPERATION TERMINAL

HARDWARE MANUAL (CONNECTION)

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FAX BACK

Mitsubishi has a world wide reputation for its efforts in continually developing and pushing back the frontiers of industrial automation. What is sometimes overlooked by the user is the care and attention to detail that is taken with the documentation. However, to continue this process of improvement, the comments of the Mitsubishi users are always welcomed. This page has been designed for you, the reader, to fill in your comments and fax them back to us. We look forward to hearing from you.

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Guidelines for the Safety of the User and Protection of the Graphic operation terminal GOT-F900

This manual provides information for the use of the Graphic operation terminal GOT-F900. The manual has been written to be used by trained and competent personnel. The definition of such a person or persons is as follows;

- a) Any engineer who is responsible for the planning, design and construction of automatic equipment using the product associated with this manual should be of a competent nature, trained and qualified to the local and national standards required to fulfill that role. These engineers should be fully aware of all aspects of safety with regards to automated equipment.
- b) Any commissioning or service engineer must be of a competent nature, trained and qualified to the local and national standards required to fulfill that job. These engineers should also be trained in the use and maintenance of the completed product. This includes being completely familiar with all associated documentation for the said product. All maintenance should be carried out in accordance with established safety practices.
- c) All operators of the completed equipment should be trained to use that product in a safe and coordinated manner in compliance to established safety practices. The operators should also be familiar with documentation which is connected with the actual operation of the completed equipment.

Note : Note: the term 'completed equipment' refers to a third party constructed device which contains or uses the product associated with this manual.

Notes on the Symbols Used in this Manual

At various times through out this manual certain symbols will be used to highlight points of information which are intended to ensure the users personal safety and protect the integrity of equipment. Whenever any of the following symbols are encountered its associated note must be read and understood. Each of the symbols used will now be listed with a brief description of its meaning.

Hardware Warnings



- 1) Indicates that the identified danger **WILL** cause physical and property damage.



- 2) Indicates that the identified danger could **POSSIBLY** cause physical and property damage.



- 3) Indicates a point of further interest or further explanation.

Software Warnings



- 4) Indicates special care must be taken when using this element of software.



- 5) Indicates a special point which the user of the associate software element should be aware of.



- 6) Indicates a point of interest or further explanation.

- Under no circumstances will Mitsubishi Electric be liable responsible for any consequential damage that may arise as a result of the installation or use of this equipment.
- All examples and diagrams shown in this manual are intended only as an aid to understanding the text, not to guarantee operation. Mitsubishi Electric will accept no responsibility for actual use of the product based on these illustrative examples.
- Please contact a Mitsubishi distributor for more information concerning applications in life critical situations or high reliability.

Note to user

This manual describes the connection procedure to connect the graphic operation terminal (GOT-F900 Series) to a MELSEC FX/A/QnA/Q Series PLC, PLC by another company, printer, bar code reader, etc.

Please read this manual before using the GOT-F900 Series, understand sufficiently the use of the product, then use correctly the product.

For the contents related to the specifications and the operations such as the display function of the product, refer to the USER'S MANUAL of each product offered separately.

For the details about screen creation for GOT-F900, refer to the OPERATION MANUAL attached to the screen creation software.

Make sure that this manual is delivered to the end user.

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1. Introduction

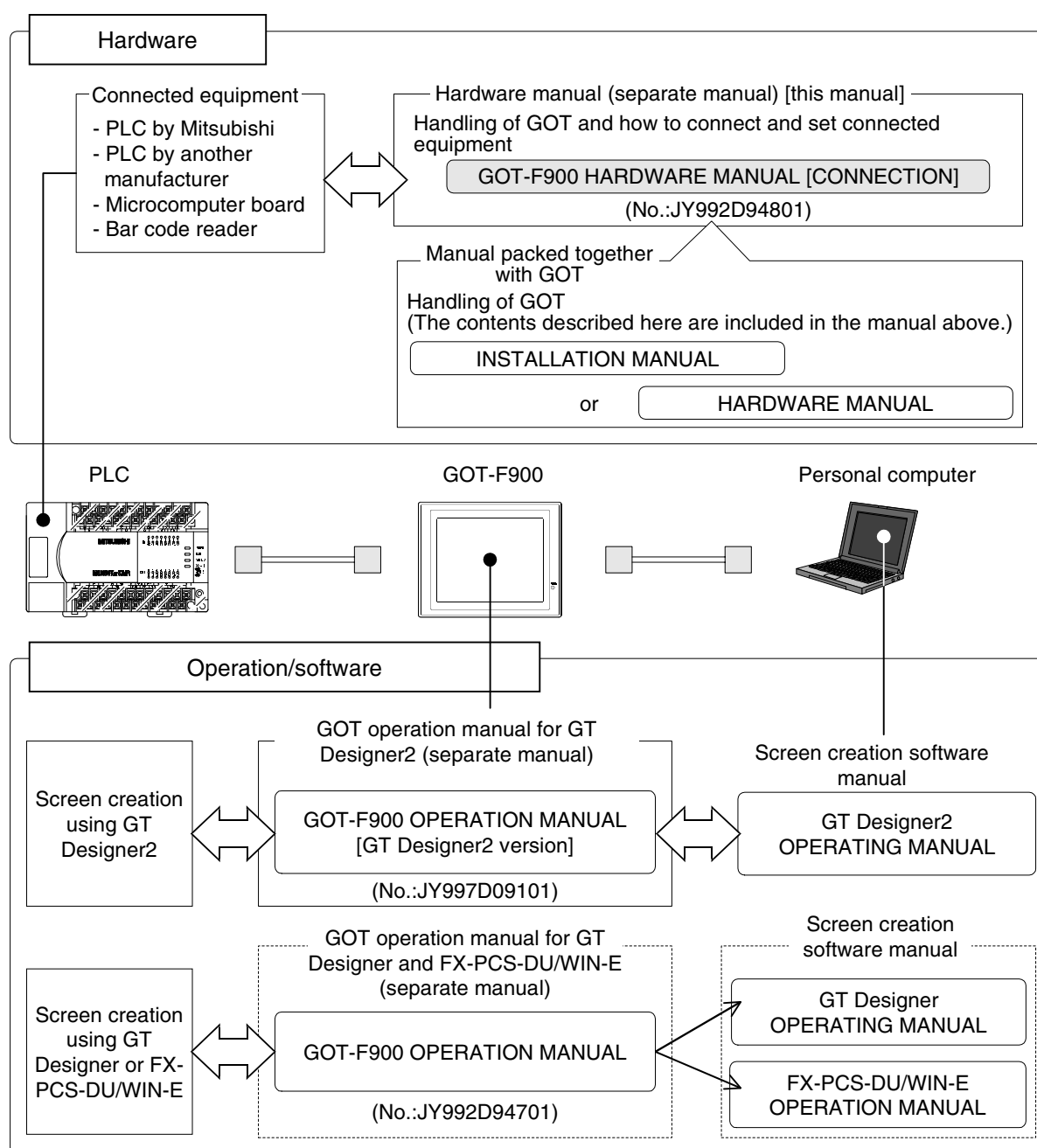
We appreciate it very much that you have purchased Mitsubishi graphic operation terminal. Please read thoroughly this manual to understand sufficiently and use correctly the functions and the performance of the graphic operations terminal.

Please make sure that this manual is delivered to the end user.

1.1 Rank and Use Method of This Manual

The following manuals are offered for the GOT-F900 Series.

Each manual is classified in accordance with the purpose. Read a manual suitable to your purpose, then understand handling, operations and function of the GOT and the screen creation software GT Designer2, GT Designer and DU/WIN.



This manual describes how to set the screen creation software, select cables and perform wiring in connecting the GOT-F900 Series to a connected equipment.

Information Offered by Model name and In-built Fonts Introduction

Outline of Connection Types Section 1

Applicable PLC and connection type Section 2

Screen Creation Software Version

Device Names Which can be Monitored



This manual can be classified as follows in accordance with the type of GOT-F900 Series.

F920GOT-K, F930GOT(-K), F940GOT or F940WGOT Series..... Read from Section 3.

Handy GOT Series..... Read from Section 4.

1.1.1 Classification of Manuals in Accordance with Purpose

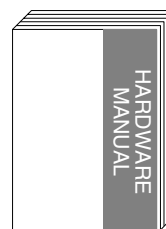
When requiring a manual not included with the product, contact our sales representative.

COMMON HARDWARE MANUAL (sent separately)

Corresponds to all of the F920GOT-K, F930GOT(-K), F940GOT and handy GOT Series, and describes in details the connection to a PLC or personal computer and the setting method.

- GOT-F900 SERIES GRAPHIC OPERATION TERMINAL HARDWARE MANUAL [CONNECTION] (No. JY992D94801)
 - To learn how to connect the GOT to a personal computer (for screen data transfer).
 - To understand how to connect the main unit to equipment.
 - To learn how to set the screen creation software.

MODEL CODE	09R805
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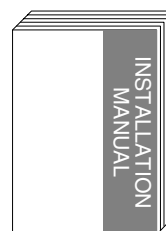
It is included as PDF data on CD-ROM of screen creation software SW□D5C-GTD2-E.
It is included as PDF data on CD-ROM of screen creation software SW□D5C-GOTR-PACK.

HARDWARE MANUAL AND INSTALLATION MANUAL

Describes mainly the outside dimension, the installation, the power supply wiring and the electrical specifications.

- F920GOT-BBD5-K-E, F920GOT-BBD-K-E INSTALLATION MANUAL (No. JY997D02201)

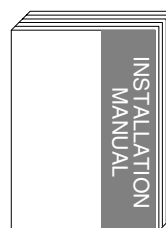
- To learn the features of the main unit.
- To confirm the specifications of the main unit.
- To learn the name of each part of the main unit.
- To learn how to install the main unit and wire the power supply.
- To look at the external dimensions diagram of the main unit.



It is included with the F920GOT-BBD-K-E and F920GOT-BBD5-K-E.

- F930GOT INSTALLATION MANUAL (No. JY992D95701)

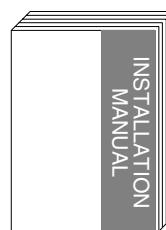
- To learn the features of the main unit.
- To confirm the specifications of the main unit.
- To learn the name of each part of the main unit.
- To learn how to install the main unit and wire the power supply.
- To look at the external dimensions diagram of the main unit.



It is included with the F93□GOT-BWD-E.

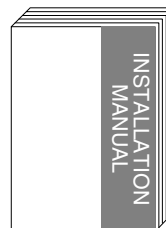
- F930GOT-BBD-K-E INSTALLATION MANUAL (No. JY997D02501)

- To learn the features of the main unit.
- To confirm the specifications of the main unit.
- To learn the name of each part of the main unit.
- To learn how to install the main unit and wire the power supply.
- To look at the external dimensions diagram of the main unit.



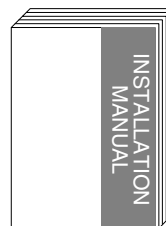
It is included with the F930GOT-BBD-K-E.

- F940GOT INSTALLATION MANUAL (No. JY992D94201)
 - To learn the features of the main unit.
 - To confirm the specifications of the main unit.
 - To learn the name of each part of the main unit.
 - To learn how to install the main unit and wire the power supply.
 - To look at the external dimensions diagram of the main unit.



It is included with the
F94□GOT-SWD-E and
F94□GOT-LWD-E.

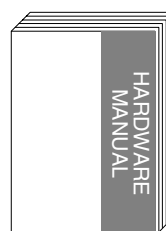
- F940WGOT INSTALLATION MANUAL (No. JY992D93901)
 - To learn the features of the main unit.
 - To confirm the specifications of the main unit.
 - To learn the name of each part of the main unit.
 - To learn how to install the main unit and wire the power supply.
 - To look at the external dimensions diagram of the main unit.



It is included with the
F940WGOT-TWD-E.

- F940 HANDY GOT HARDWARE MANUAL (No. JY992D86901)
 - To learn the features of the main unit.
 - To confirm the specifications of the main unit.
 - To learn the name of each part of the main unit.
 - To learn how to install the main unit.
 - To look at the external dimensions diagram of the main unit.

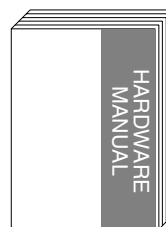
MODEL CODE	09R810
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It is included with the
F94□GOT-SBD-H-E and
F94□GOT-LBD-H-E.

- F940 HANDY GOT (RH model) HARDWARE MANUAL (No. JY992D99901)
 - To learn the features of the main unit.
 - To confirm the specifications of the main unit.
 - To learn the name of each part of the main unit.
 - To learn how to install the main unit.
 - To look at the external dimensions diagram of the main unit.

MODEL CODE	09R811
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It is included with the
F94□GOT-SBD-RH-E
and
F94□GOT-LBD-RH-E.

OPERATION MANUAL of GOT (sent separately)

Describes how to operate system screens and how to create and operate user screens, and covers all of the F920GOT-K, F930GOT(-K), F940GOT and Handy GOT.

- GOT-F900 SERIES OPERATION MANUAL (No. JY992D94701)
 - To learn the display function of the GOT-F900.
 - To execute items in the HPP mode (such as "PROGRAM LIST" and "MONITOR").
 - To execute "DEVICE MONITOR" and display alarms.



Applicable GOT
F920GOT-BBD-K-E
F920GOT-BBD5-K-E
F930GOT-BWD-E
F930GOT-BBD-K-E
F94□GOT-SWD-E
F94□GOT-LWD-E
F940WGOT-TWD-E
F94□GOT-SWD-(R)H-E
F94□GOT-LBD-(R)H-E

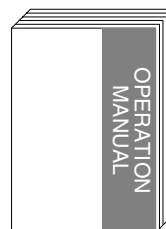
Screen creation software

GT Designer and FX-PCS-DU/WIN-E are supported.

MODEL CODE	09R804
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- GOT-F900 SERIES OPERATION MANUAL [GT Designer2] (No. JY997D09101)

- To learn the display function of the GOT-F900.
- To execute items in the HPP mode (such as "PROGRAM LIST" and "MONITOR").
- To execute "DEVICE MONITOR" and display alarms.



Applicable GOT
F920GOT-BBD-K-E
F920GOT-BBD5-K-E
F930GOT-BWD-E
F930GOT-BBD-K-E
F94□GOT-SWD-E
F94□GOT-LWD-E
F940WGOT-TWD-E
F94□GOT-SWD-(R)H-E
F94□GOT-LBD-(R)H-E

It is distributed as PDF data saved in the CD-ROM of the SW□D5C-GTD2-E.

Screen creation software

GT Designer2 is supported.

MODEL CODE	09R813
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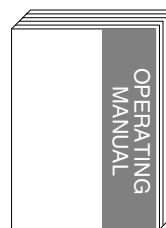
OPERATION MANUAL of screen creation software

Two types of screen creation software are offered. The manual of the software you are using is required (It is included with the software.).

GT Designer2

- GT Designer2 (SW□D5C-GTD2-E) OPERATING MANUAL (separate manual)
Consult with the distributor from which you have purchased GT Designer2.

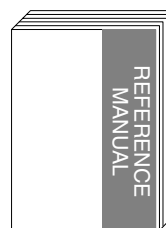
- To install the software to the personal computer.
- To start up each software.
- To learn how to connect the personal computer to the GOT.
- To learn the screen configuration of the software.
- To learn the outline of diversified monitoring functions.
- To learn the procedure to display the monitor screen.
- To learn how to use the library function.
- To learn how to draw graphics.



It is distributed as PDF data saved in the CD-ROM of the SW□D5C-GTD2-E.

- GT Designer2 (SW□D5C-GTD2-E) REFERENCE MANUAL (separate manual)
Consult with the distributor from which you have purchased GT Designer2.

- To learn the types and specifications of GOT screens.
- To learn the device range which can be monitored.
- To learn common items to be set at the beginning.
- To learn how to set and display the key window.
- To learn how to use each object function.
- To learn how to use the script function.

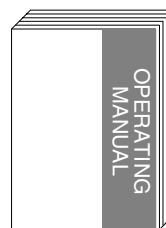


It is distributed as PDF data saved in the CD-ROM of the SW□D5C-GTD2-E.

GT Designer

- GT Designer (SW□D5C-GOTR-PACKE) OPERATING MANUAL

- To install the software to the personal computer.
- To start up the software.
- To learn how to connect the personal computer to the GOT.
- To learn the screen configuration of the software.
- To learn the outline of diversified monitoring functions.
- To learn the procedure to display the monitor screen.
- To learn how to use the help function.

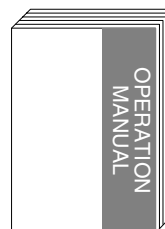


It is distributed as PDF data saved in the CD-ROM of the SW□D5C-GOTR-PACKE.

- FX-PCS-DU/WIN-E OPERATION MANUAL (No: JY992D68301)

- To install the software to the personal computer.
- To start up the software.
- To learn how to connect the personal computer to the GOT.
- To learn the screen configuration of the software.
- To learn how to use the help function.

MODEL CODE	09R910
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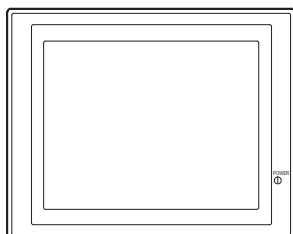
It is included with the
FX-PCS-DU/WIN-E.

1.2 Abbreviations, Generic Names and Terms Used in This Manual

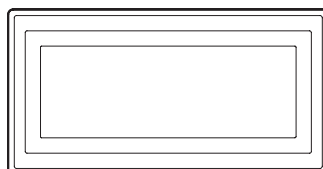
Abbreviations, generic names and terms used in this manual are shown below.

1.2.1 Types and Names of GOT-F900 Series

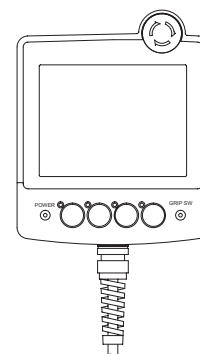
F940GOT



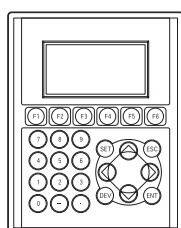
F930GOT



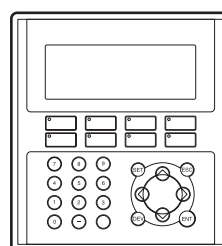
Handy GOT



F920GOT-K



F930GOT-K



Generic name	Name		Model name	Built-in I/F	Remarks
GOT-F900 Series	F940WGOT		F940WGOT-TWD	RS-422 ×1	Japanese models
			F940WGOT-TWD-E, F940WGOT-TWD-C	RS-232C ×2	World spec models
	F940GOT		F940GOT-SWD, F940GOT-LWD	RS-422 ×1 RS-232C ×1	Japanese models
			F940GOT-SWD-E, F940GOT-LWD-E F940GOT-SWD-C, F940GOT-LWD-C	RS-422 ×1 RS-232C ×1	World spec models
	F943GOT		F943GOT-SWD, F943GOT-LWD	RS-232C ×2	Japanese models
	F930GOT-K		F930GOT-BBD-K	RS-422 ×1	Japanese models
			F930GOT-BBD-K-E, F930GOT-BBD-K-C	RS-232C ×1	World spec models
	F930GOT		F930GOT-BWD	RS-422 ×1 RS-232C ×1	Japanese models
			F930GOT-BWD-E F930GOT-BWD-C F930GOT-BWD-T		World spec models
	F933GOT		F933GOT-BWD	RS-232C ×2	Japanese models
	F920GOT-K	5V	F920GOT-BBD5-K	RS-422 ×1	Japanese models
			F920GOT-BBD5-K-E, F920GOT-BBD5-K-C	RS-232C ×1	World spec models
		24V	F920GOT-BBD-K	RS-422 ×1	Japanese models
			F920GOT-BBD-K-E, F920GOT-BBD-K-C	RS-232C ×1	World spec models
	F940 handy GOT *1		F940GOT-SBD-H, F940GOT-LBD-H F940GOT-SBD-RH, F940GOT-LBD-RH	RS-422 ×1	Japanese models
			F940GOT-SBD-H-E, F940GOT-LBD-H-E F940GOT-SBD-RH-E, F940GOT-LBD-RH-E		World spec models
	F943 handy GOT *1		F943GOT-SBD-H, F943GOT-LBD-H F943GOT-SBD-RH, F943GOT-LBD-RH	RS-232C ×1	Japanese models
			F943GOT-SBD-H-E, F943GOT-LBD-H-E F943GOT-SBD-RH-E, F943GOT-LBD-RH-E		World spec models

*1 In addition to the interface shown in the table, an RS-232C interface is built in for connection of a personal computer.

- Both the F940 Handy GOT and the F943 Handy GOT are generally called "Handy GOT".

1.2.2 Information Offered by Model Name

GOT								
F9□□□			GOT-○○○○-○-○-○					
1)	2)	3)	4)	5)	6)	7)	8)	9)
1) LC display size 2: 3 in. 3: 4 in. 4: 6 in. (7 in. in F940WGOT) 2) PLC connection specifications 0: RS-422, RS-232C Interface 3: RS-232C × 2ch interface In the case of Handy GOT 0: RS-422 Interface 3: RS-232C interface 3) Screen shape None: Standard W: Wide screen 4) Screen color T: TFT type 256-color LCD S: STN type 8-color LCD L: STN type black-and-white LCD B: STN type blue LCD 5) Panel color W: White B: Black 6) Input power supply specifications D: 24V DC D5: 5V DC 7) Various keys None: Not with a key K: With a key 8) Type None: Panel face installation type H: Handy GOT RH: Handy GOT 9) Overseas models E: In-built fonts vary depending on model. C: For details, refer to the next page. T:								

1.2.3 In-built Fonts of Graphic Operation Terminal (Japanese/Overseas product)

Carefully confirm the in-built fonts when selecting a model from the F920GOT-K or F930GOT(-K).

Name	GOT model name *1	Language displayed on system screen *2		In-built fonts (user screen) *3													
				Japanese		English	Korean	Chinese		Western Europe							
		At factory	Can be switched to	Shift JIS level-1 kanji set	Shift JIS level-2 kanji set	English	Korean	Simplified	Traditional	Italian	Dutch	Swedish	Spanish	German	Portuguese	French	
F940WGOT	F940WGOT-TWD	Japanese	English	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	F940WGOT-TWD-E	English	Japanese	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	F940WGOT-TWD-C	Chinese (Simplified)	English	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
F940GOT	F94□GOT-SWD	Japanese	English	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	F94□GOT-LWD																
	F940GOT-SWD-E	English	Japanese	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	F940GOT-LWD-E																
	F940GOT-SWD-C	Chinese (Simplified)	English	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	F940GOT-LWD-C																
F930GOT-K	F930GOT-BBD-K	Japanese	English	✓	✓*5	✓	—	—	—	✓	✓	✓	✓	✓	✓	✓	
	F930GOT-BBD-K-E	English	Japanese	✓	—	✓	✓*4	—	—	✓	✓	✓	✓	✓	✓	✓	
	F930GOT-BBD-K-C	Chinese (Simplified)	English	—	—	✓	—	✓	—	—	—	—	—	—	—	—	
F930GOT	F93□GOT-BWD	Japanese	English	✓	✓*5	✓	—	—	—	✓	✓	✓	✓	✓	✓	✓	
	F930GOT-BWD-E	English	Japanese	✓	—	✓	✓*4	—	—	✓	✓	✓	✓	✓	✓	✓	
	F930GOT-BWD-C	Chinese (Simplified)	English	—	—	✓	—	✓	—	—	—	—	—	—	—	—	
	F930GOT-BWD-T	English	—	—	—	✓	—	—	✓	—	—	—	—	—	—	—	
F920GOT-K	F920GOT-BBD(5)-K	Japanese	English	✓	✓	✓	—	—	—	✓	✓	✓	✓	✓	✓	✓	
	F920GOT-BBD(5)-K-E	English	Japanese	✓	✓	✓	✓*4	—	—	✓	✓	✓	✓	✓	✓	✓	
	F920GOT-BBD(5)-K-C	Chinese (Simplified)	English	—	—	✓	—	✓	✓	—	—	—	—	—	—	—	
Handy GOT	F94□GOT-SBD-H	Japanese	English	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	F94□GOT-LBD-H																
	F94□GOT-SBD-H-E	English	Japanese	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	F94□GOT-LBD-H-E																
Handy GOT (RH model)	F94□GOT-SBD-RH	Japanese	English	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	F94□GOT-LBD-RH																
	F94□GOT-SBD-RH-E	English	Japanese	✓	—	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	F94□GOT-LBD-RH-E																

*1 □ in the GOT model name indicates 0 or 3. (The in-built interface varies as shown below.)

Name	0	3
F940GOT, F930GOT	RS-422(1), RS-232C(1)	RS-232C(2)
Handy GOT, Handy GOT RH model	RS-422(1)	RS-232C(1)

*2 A change on a system screen can be made in the screen creation software or GOT main unit.

*3 The font which can be displayed on a user screen

Depending on the OS, the font may not be displayed even if it is built in the GOT-F900.

*4 Only the Hangul is available.

*5 Supported from units manufactured in January, 2003 (serial No. 31****).

1.2.4 Abbreviation List

Abbreviation/generic name/term		Description
CPU	QCPU(Q mode)	Generic name of Q00JCPU, Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU and Q25HCPU units
	QCPU(A mode)	Generic name of Q02CPU-A, Q02HCPU-A and Q06HCPU-A units
	QCPU	Generic name of QCPU (Q mode) and QCPU (A mode) units
	QnACPU(large type)	Generic name of Q2ACPU, Q2ACPU-S1, Q3ACPU, Q4ACPU and Q4ARCPU units
	QnACPU(small type)	Generic name of Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU and Q2ASHCPU-S1 units
	QnACPU	Generic name of QnACPU (large type) and QnACPU (small type) units
	AnUCPU	Generic name of A2UCPU, A2UCPU-S1, A3UCPU and A4UCPU units
	AnACPU	Generic name of A2ACPU, A2ACPU-S1 and A3ACPU units
	AnNCPU	Generic name of A1NCPU, A2NCPU, A2NCPU-S1 and A3NCPU units
	ACPU(large type)	Generic name of AnUCPU, AnACPU and AnNCPU units
	A2US(H)CPU	Generic name of A2USCPU, A2USCPU-S1 and A2USHCPU-S1 units
	AnS(H)CPU	Generic name of A1SCPU, A1SHCPU and A2SCPU units
	A1SJ(H)CPU	Generic name of A1SJCPU-S3 and A1SJHCPU units
	ACPU(small type)	Generic name of A2US(H)CPU, AnS(H)CPU and A1SJ(H)CPU units
	ACPU	Generic name of ACPU (large type), ACPU (small type) and A1FXCPU units
	FX0 Series	Generic name of FX0 Series main units
	FX0S Series	Generic name of FX0S Series main units
	FX1S Series	Generic name of FX1S Series main units
	FX0N Series	Generic name of FX0N Series main units
	FX1N Series	Generic name of FX1N Series main units
	FX1 Series	Generic name of FX1 Series main units
	FX Series	Generic name of FX Series main units
	FX2 Series	Generic name of FX2 Series main units
	FX2N Series	Generic name of FX2N Series main units
	FX2C Series	Generic name of FX2C Series main units
	FX2NC Series	Generic name of FX2NC Series main units
	FXCPU	Generic name of FX0/FX0S/FX1S/FX0N/FX1N/FX1/FX/FX2/FX2N/FX2C/FX2NC Series main units
	FX Series GM positioning unit	FX-10GM, FX-20GM, E-20GM, FX2N-10GM and FX2N-20GM
	A Motion controller CPU	Generic name of A171SCPU-S3, A171SHCPU, A172SHCPU and A273UHCPU
	FREQROL Series	A500/E500/S500 Series inverter
PLC by other companies	PLC by Omron	Generic name of C200H, C200HE, C200HG, C200HX, CQM1, CS1, CPM1A, CPM2A, CPM2C and CJ1
	PLC by Fuji Electric	Generic name of FLEX-PC N Series (NB-RS1-AC, NB-RS1-DC, NJ-RS4, NJ-RS1 and NJ-RS2)
	PLC by Yasukawa Electric	Generic name of machine controllers CP-9200SH, MP-920 and MP-930
	PLC by Matsushita Electric Works	Generic name of FP0, FP2SH, FP2SH+FP2-CCU and FPΣ
	PLC by Allen Bradley	Generic name of SLC 5/03 and SLC 5/04
	PLC by Siemens	Generic name of SIMATIC S7-200, S7-300 and S7-400

Abbreviation/generic name/term		Description			
PLC by other companies	PLC by another company	Generic name of PLC manufactured by Omron, Fuji Electric, Yasukawa Electric, Allen-Bradley or Siemens			
Others	OS	Abbreviation of GOT system software			
	GT Designer2	Abbreviation of screen creation software for GOT-A900/GOT-F900 Series			
		GT Works2	SW□D5C-GTWK2-E	Integrated screen development software for GOT900 Series (SW□D5C-GTD2-E + GT Simulator2 + GT SoftGOT2) (English version)	
			SW□D5C-GTWS-E	Integrated screen development software for GOT900 Series (SW□D5C-GTWK2-E + A9GTSOFT-LKEY-P) (English version)	
		GT Designer2	SW□D5C-GTD2-E	Screen creation software for GOT900 Series (English version)	
	GT Designer	Abbreviation of screen creation software for GOT-A900/GOT-F900 Series			
		GT Works	SW□D5C-GTWORKS-E	Integrated screen development software for GOT900 Series (SW□D5C-GOTR-PACKE + GT Simulator) (English version)	
		GT Designer	SW□D5C-GOTR-PACKE	Screen creation software for GOT900 Series SW□D5C-GOTR-PACKE (English version)	
			SW□D5C-GOTR-PACKEV	Software dedicated to version upgrade from conventional version to latest SW□D5C-GOTR-PACKE (English version)	
	DU/WIN	Abbreviation of screen creation software FX-PCS-DU/WIN-E for GOT-F900 Series			
	FX/WIN	Abbreviation of programming software FX-PCS/WIN-E for FX Series PLC			
	Data conversion software	Abbreviation of data conversion software GOT Converter for GOT900 Series			
	Debugging software	Abbreviation of debugging software GOT Debugger			
	Object	Parts and setting data on the screen.			
	Windows95	Abbreviation of Microsoft Windows95			
	Windows98	Abbreviation of Microsoft Windows98			
	Windows NT4.0	Abbreviation of Microsoft Windows NT Workstation 4.0			
Windows 2000	Abbreviation of Microsoft Windows 2000 Professional				
Windows	Generic name of Windows95, Windows98, Windows NT4.0 and Windows2000				
Personal computer (PC)	Personal computer compatible with Windows to which GT Designer2, GT Designer or DU/WIN is installed				

This manual describes the following product in the new name.

Conventional name	New name	Remarks
GPPW	GX Developer	Abbreviation of software package SW□D5C-GPPW-E

Abbreviation/generic name/term		Description
Connection diagram	BK	Black
	W	White
	Y	Yellow
	BR	Brown
	BL	Blue
	GY	Gray
	O	Orange
	PL	Purple
	PK	Pink
	FGR	Fresh green
	SB	Sky blue
	R	Red
	GR	Green

2. Outline

This section describes the outline of PLC, bar code reader, printer, etc. which can be connected to the GOT-F900.

2.1 Connection Type Supported by GOT-F900

The table below shows connection types supported by the GOT-F900 having the latest OS version.

2.1.1 GOT type list and index

Connected equipment	Connection destination	Description	Reference
F920GOT-K, F930GOT, F930GOT-K, F940GOT, F940WGOT	—	Name of each part, installation and power supply wiring	Chapter 4
Handy GOT	—	Dedicated wiring and functions of Handy GOT such as name of each part, installation, cables dedicated to Handy GOT and switch control method	Chapter 5
Connection of peripheral equipment	Peripheral equipment	Cable used to connect the personal computer to transfer screen data and sequence programs	Chapter 6
Connection of two or more GOT units	GOT-GOT	Wiring among up to four connected GOT units	Chapter 7

2.1.2 Connection type list and index

"✓" indicates can connect. "-" indicates cannot connect.

Manufacturer	Connected equipment	Connection destination	Transmission specifications		Connection of two or more GOT units	Reference
			RS-422	RS-232C		
PLC by Mitsubishi	FX Series	CPU direct connection	✓	✓	✓	Chapter 8
	A Series	CPU direct connection	✓	–	✓	Chapter 9
		A computer link	✓	✓	–	
	A Motion controller	CPU direct connection	✓	–	✓	Chapter 9
		A computer link	✓	✓	–	
	QnA Series	CPU direct connection	✓	–	✓	Chapter 10
		A computer link	✓	✓	–	
		QnA computer link	✓	✓	✓	
	Q Series (A mode)	CPU direct connection	–	–	–	–
		A computer link	–	–	–	
	Q Series (Q mode)	CPU direct connection	–	✓	✓	Chapter 11
		Serial communication unit (CPU direct connection)	✓	✓	✓	
	Q Series (multi CPU)	CPU direct connection	–	✓	✓	Chapter 11
		Serial communication unit (CPU direct connection)	✓	✓	✓	
	FX positioning unit (10GM/20GM)	CPU direct connection	✓	–	–	Chapter 12
	FREQROL Series (inverter)	CPU direct connection	✓	–	–	Chapter 13
PLC by other companies	General-purpose equipment such as microcomputer board	CPU direct connection	✓	✓	✓	Chapter 14
	SYSMAC C Series by Omron	Upper link	✓	✓	–	Chapter 15
	FLEX-PC N Series by Fuji Electric	Link unit	✓	✓	–	Chapter 16
	Machine controller by Yasukawa Electric	CPU direct connection (memo bus)	–	✓	–	Chapter 17
		Memo bus unit	✓	✓	–	
	FP Series by Matsushita Electric Works	CPU direct connection	–	✓	–	Chapter 18
	SLC500/MicroLogix Series by Allen-Bradley	CPU direct connection	–	✓	–	Chapter 19
	SIMATIC S7-200 SIMATIC S7-300 Series by Siemens	CPU direct connection	–	✓	–	Chapter 20
Others	General-purpose printer	–	–	✓	–	Chapter 21
	Bar code reader	–	–	✓	–	Chapter 22

- For the details of the connection type in accordance with the OS version of the GOT-F900, refer to section 3.1.

2.2 Outline of Connection Types

This section explains by means of diagrams the connection types of PLC, bar code reader, printer and personal computer (for sequence programs) connected to the GOT-F900.

The same type of equipment cannot be connected. (For example, connection of two PLC units or connection of two bar code readers are not allowed.)

The compatible connection types vary according to the model of the GOT-F900. For details, refer to the specifications shown later.

2.2.1 PLC by Mitsubishi

This section describes the outline of connection of the GOT-F900 to the PLC manufactured by Mitsubishi.

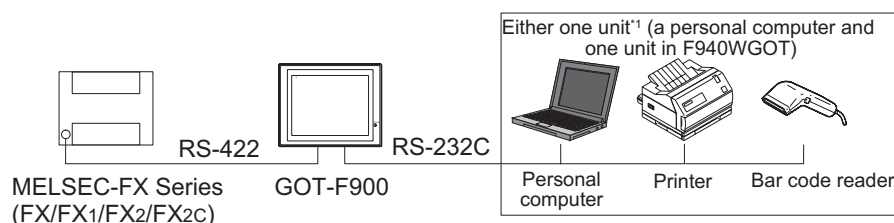
"  " indicates that a PLC programming tool (personal computer) can be connected.

(Program transfer and monitoring are available using the programming software for the FX/A/QnA/Q Series.)

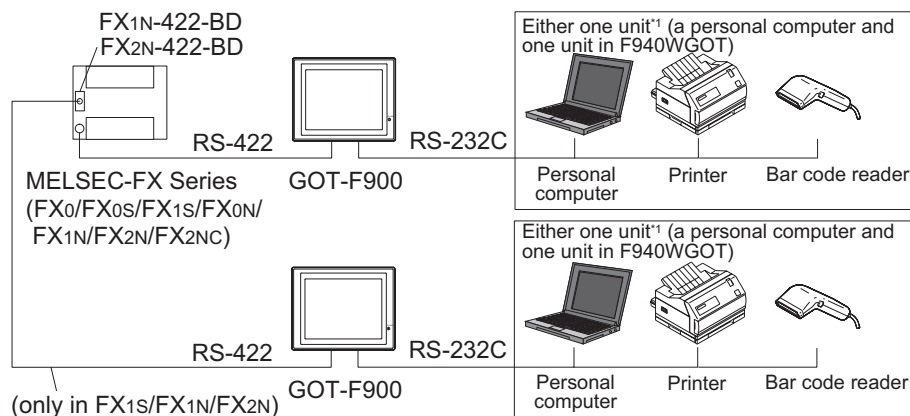
FX Series PLC

1) CPU direct connection (RS-422)

GOT-F900 is connected to the programming port of the FX Series PLC. When a personal computer is connected to the GOT-F900, sequence programs can be created.



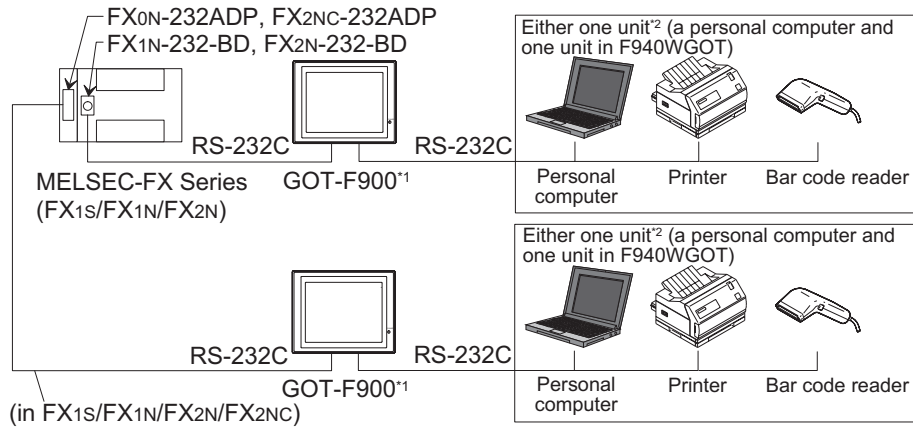
By attaching the optional RS-422 communication board, a programming port can be added. As a result, a GOT-F900 or personal computer (for sequence programs) can be connected to each port.



*1 Excluding the F920GOT-K

2) CPU direct connection (RS-232C)

By attaching the optional RS-232C communication board, a programming port can be added. As a result, the GOT-F900 or personal computer (for sequence programs) can be connected to each port. (A personal computer, printer or bar code reader can be connected only when the GOT is equipped with two RS-232C channels.)

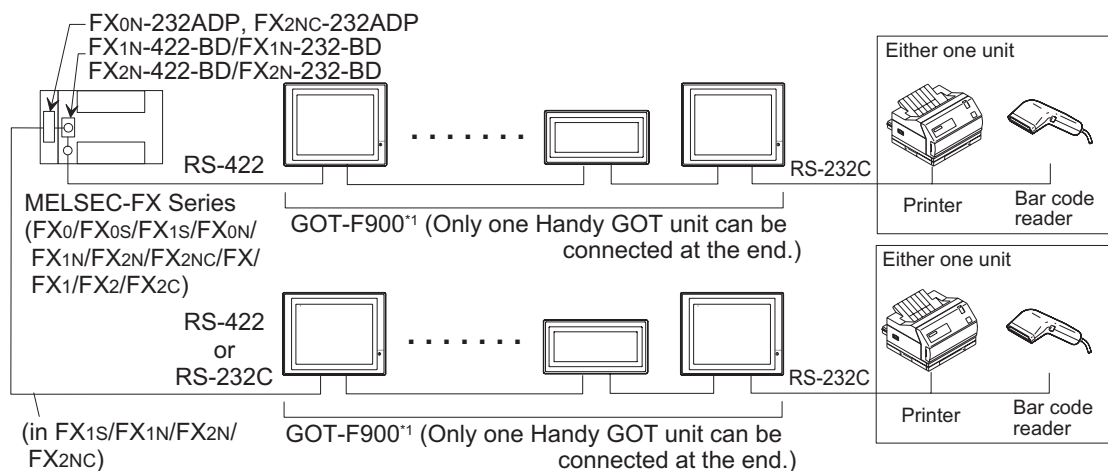


*1 Excluding the 5V type F920GOT-K.

*2 Excluding the F920GOT-K

3) Connection of two or more GOT units

Up to four GOT-F900 units can be connected to the programming port or the optional communication port of the FX Series PLC.

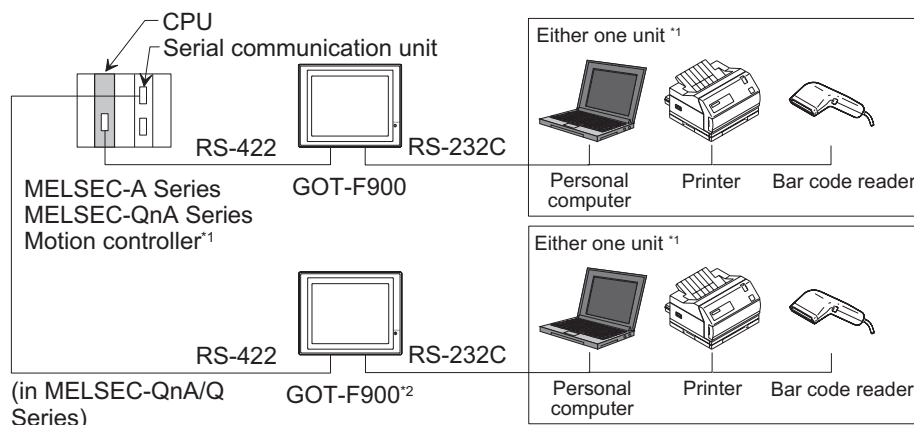


*1 Excluding the F920GOT-K

Q/QnA Series PLC

1) CPU direct connection (RS-422)

GOT-F900 is connected to the programming port of the A/QnA Series PLC or the motion controller. When a personal computer is connected to the GOT-F900, programs can be created. The serial communication unit of the Q/QnA Series PLC is connected through CPU direct connection. The GOT-F900 can be connected to only either one between two ports. (Connecting two GOT-F900 units to one serial communication unit is not allowed.)

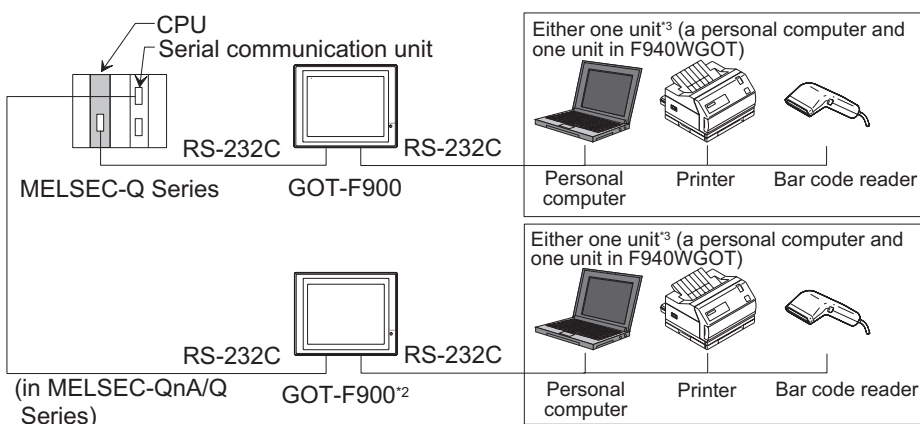


*1 Excluding the F920GOT-K

*2 Excluding the 5V type F920GOT-K.

2) CPU direct connection (RS-232C)

GOT-F900 is connected to the programming port of the Q Series PLC (Multi-CPU system applicable^{*1}) or the serial communication unit of the Q/QnA Series PLC. When a personal computer is connected to the GOT-F900, programs can be created. The serial communication unit of the Q/QnA Series PLC is connected through CPU direct connection. The GOT-F900 can be connected to only either one between two ports. (Connecting two GOT-F900 units to one serial communication unit is not allowed.) (A personal computer, printer or bar code reader can be connected only when the GOT is equipped with two RS-232C channels.)



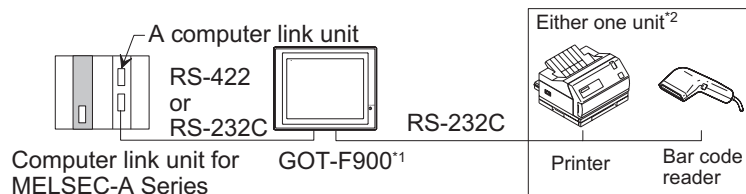
*1 GOT-F900 can be connected to the multi-CPU system only when the connection consists of QCPU. (A motion controller or CPU of a personal computer cannot be used concurrently.)

*2 Excluding the 5V type F920GOT-K.

*3 Excluding the F920GOT-K

3) A computer link connection

GOT-F900 is connected to the A/QnA Series PLC by attaching the A CPU computer link unit.



*1 Excluding the 5V type F920GOT-K.

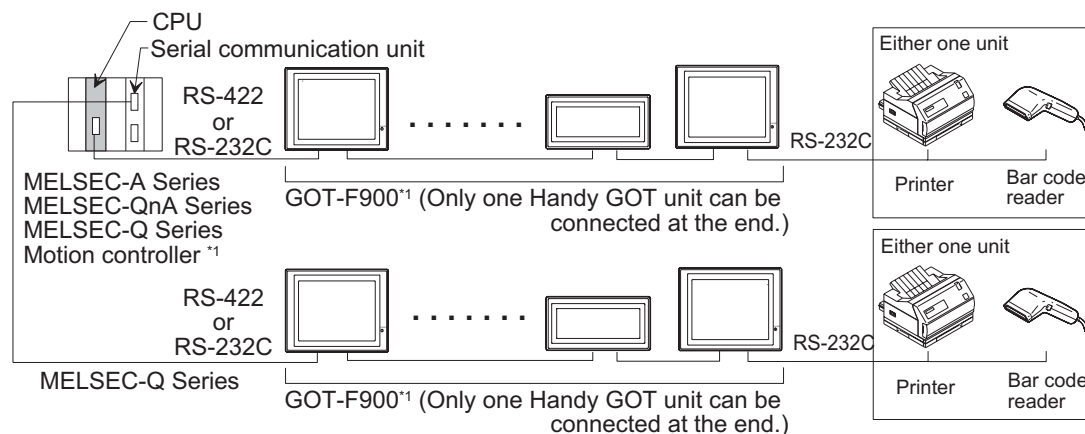
*2 Excluding the F920GOT-K.

4) Connection of two or more GOT units

In the A/QnA Series PLC, up to four GOT-F900 units can be connected to programming ports (RS-422) of the CPU.

In the QnA/Q Series PLC, to each of the CPU programming port (RS-232C) and the attached serial communication unit, up to four GOT-F900 units can be connected.

The serial communication unit of the Q/QnA Series PLC is connected through CPU direct connection. The GOT-F900 can be connected to only either one between two ports. (Connection of two GOT-F900 units to one serial communication unit is not allowed.)



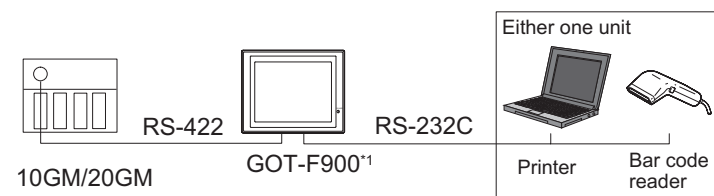
*1 Excluding the F920GOT-K

FX positioning unit (10GM/20GM)

CPU direct connection (RS-422)

GOT-F900 is connected to the programming port of the FX Series positioning unit (10GM/20GM).

(A personal computer, printer or bar code reader can be connected only when the GOT is equipped with RS-422 and RS-232C.)

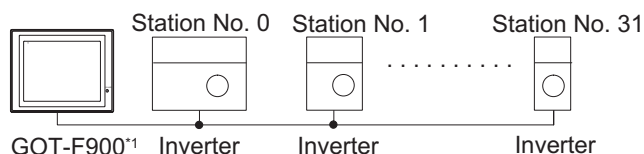


*1 Excluding the F920GOT-K

FREQROL Series**CPU direct connection (RS-422)**

GOT-F900 is connected to the (built-in) PU port of the FREQROL Series inverter.

In the A500 Series, the GOT-F900 can be connected also to the computer link option (FR-A5NR).



One GOT-F900 unit can control up to 10 inverters.

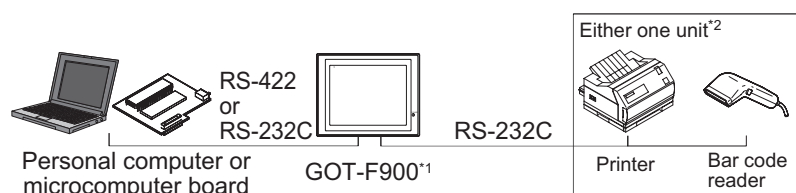
*1 Excluding the F920GOT-K

2.2.2 PLC by Other Companies

This section describes the outline of connection of the GOT-F900 to the PLC manufactured by other companies.

General-purpose equipment**1) Microcomputer connection**

The GOT-F900 can be connected to the serial communication port of a personal computer or microcomputer board.

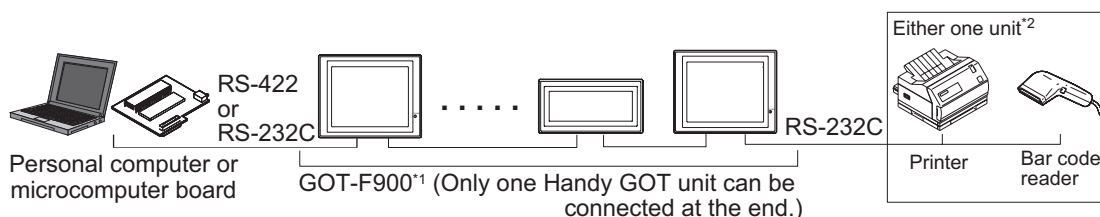


*1 Excluding the 5V type F920GOT-K.

*2 Excluding the F920GOT-K.

2) Connection of two or more GOT units

Up to four GOT-F900 units can be connected to the serial communication connector of a personal computer or microcomputer board.

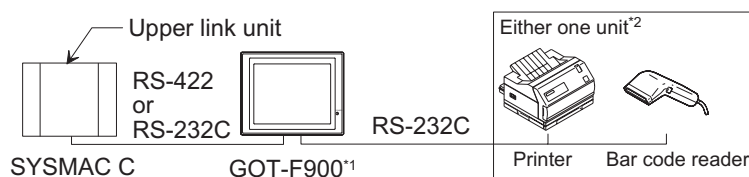


*1 Excluding the F920GOT-K

*2 Excluding the F920GOT-K.

PLC by Omron**Upper link connection**

One GOT-F900 unit can be connected to a port having the upper link communication function of the SYSMAC C Series (C200H/C200HE/C200HG/C200HX/CQM1/CS1/CPM1A/CPM2A/CPM2C/CJ1).



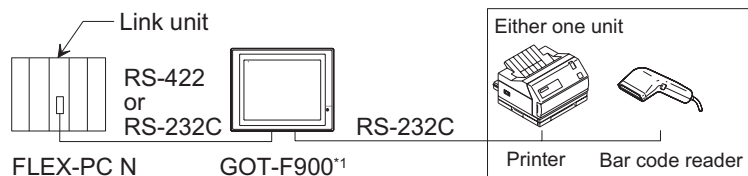
*1 Excluding the 5V type F920GOT-K.

*2 Excluding the F920GOT-K.

PLC by Fuji Electric

Link unit connection

One GOT-F900 unit can be connected to the link unit of the FLEX-PC N Series (NB/NJ/NS) PLC.

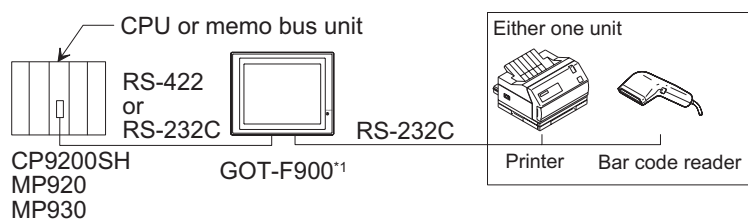


*1 Excluding the F920GOT-K

PLC by Yasukawa Electric

Memo bus unit connection

One GOT-F900 unit can be connected to the MEMOBUS port of the machine controller or the memo bus unit.

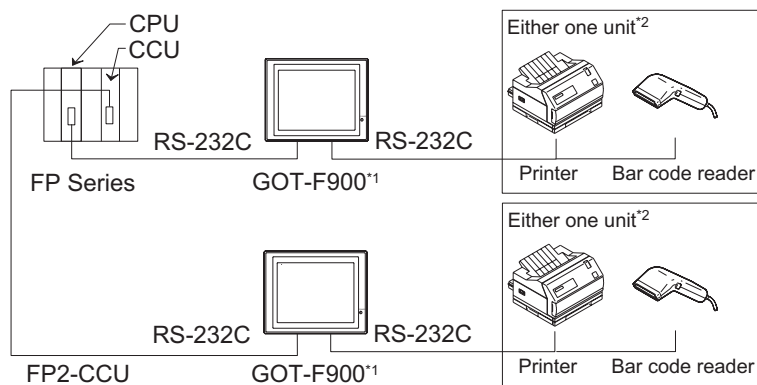


*1 Excluding the F920GOT-K

PLC by Matsushita Electric Works

CPU direct connection (RS-232C)

One GOT-F900 unit can be connected to the FP Series CPU or computer communication unit.



*1 Excluding the 5V type F920GOT-K.

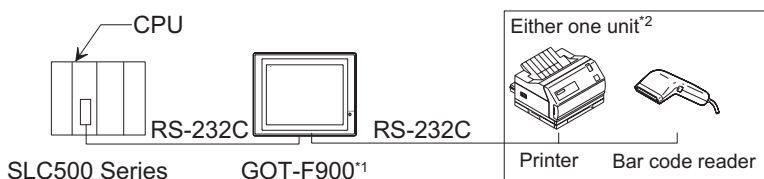
*2 Excluding the F920GOT-K.

PLC by Allen-Bradley

CPU direct connection (RS-232C)

One GOT-F900 unit can be connected to the SLC500/MicroLogix Series CPU.

(A personal computer, printer or bar code reader can be connected only when the GOT is equipped with two RS-232C channels.)



*1 Excluding the 5V type F920GOT-K.

*2 Excluding the F920GOT-K.

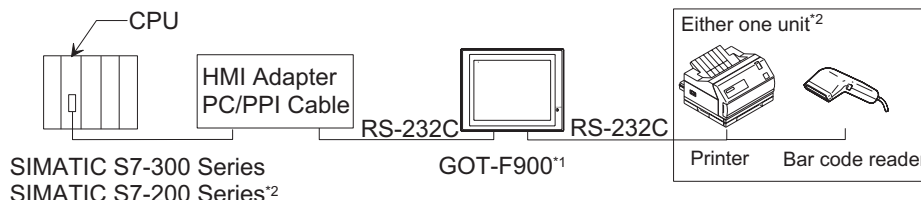
PLC by Siemens

CPU direct connection (RS-232C)

By connecting the HMI adapter to the SIMATIC S7-300 Series CPU, one GOT-F900 unit can be connected to the SIMATIC S7-300 Series CPU.

By connecting the PC/PPI cable to the SIMATIC S7-200 Series CPU, one GOT-F900 unit can be connected to the SIMATIC S7-300 Series CPU.

(A personal computer, printer or bar code reader can be connected only when the GOT is equipped with two RS-232C channels.)



*1 Excluding the 5V type F920GOT-K.

*2 Excluding the F920GOT-K.

2.2.3 Others

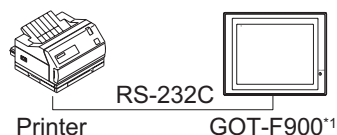
Not only the PLC, a printer or bar code reader can be connected to the GOT-F900.

The connection shown below is available also in the Handy GOT. However, because the rear panel of the Handy GOT must be removed when a cable is connected to the RS-232C connector, the waterproof ability and the operability (operation of the Handy GOT while it is held by hand) are lost. Accordingly, the connection shown below is not practical for the Handy GOT.

Printer

Connection of printer (RS-232C)

When a printer is connected to the GOT-F900, the alarms and contents of screens (as hard copy) can be printed.

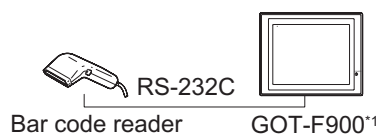


*1 Excluding the F920GOT-K and Handy GOT

Bar code reader

Connection of bar code reader

When a bar code reader is connected to the GOT-F900, bar codes can be read.



*1 Excluding the F920GOT-K and Handy GOT

MEMO

3. Specifications

This section allows to confirm connectable equipment, device specifications, versions of applicable screen creation software and hardware specifications.

3.1 OS Version and Correspondence to Connected Equipment of GOT-F900

Some equipment (PLC manufactured by Mitsubishi or other companies, microcomputer board, bar code reader, printer, etc.) cannot be connected depending on the OS (operating system) version of the GOT-F900.

In this section, you can check the OS version, and check whether it corresponds to the equipment to be connected.

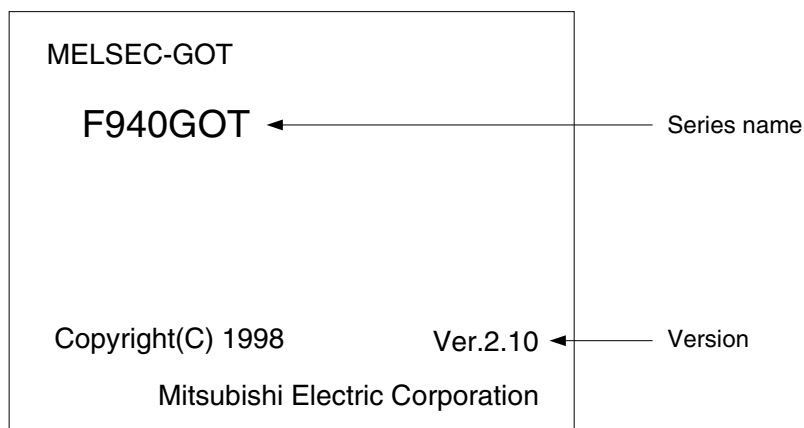
OS type

There are following five types of OS.

GOT-F900 Series	Name	Remarks
F940WGOT	940W system	
F940GOT, Handy GOT	940 system	
F930GOT	930 system	
F930GOT-K	930 system	The first product is Ver. 4.60 or later.
F920GOT-K	920 system	

3.1.1 How to Confirm OS Version of GOT-F900

When the power of the GOT-F900 is turned on, the screen shown below is displayed for several seconds to indicate the series name and the version number ("version 2.10" in the lower right position). (The period of time to be displayed can be changed by the screen creation software or the GOT.)



On the rear panel of the GOT-F900 main unit, the nameplate indicating the manufacturer's serial number, the model name and the OS version is adhered. However, because the OS can be upgraded, it is recommended to confirm it using the method above.

3.1.2 PLC, Positioning unit, Inverter Manufactured by Mitsubishi

Connected equipment name and series name	RS-232C/ RS-422	OS version				Connection of two or more GOT units	Reference
		940W system	940 system	930 system	920 system		
MITSUBISHI Electric							
MELSEC-F FX Series (CPU direct connection)		Connection type name [FXCPU direct connection]					
Connection to programming port in FX CPU							
FX0,FX0S,FX1S,FX0N,FX1N,FX2N,FX2NC FX,FX2C FX2N +FX2N-422-BD FX1S +FX1N-422-BD FX1N +FX1N-422-BD	RS-422	1.00 or later	1.00 or later	1.00 or later	1.00 or later	✓*1	8.2.1
Connection to extended communication port							
FX1S+FX1N-232-BD FX1S+FX1N-CNV-BD+FX0N-232ADP FX1S+FX1N-CNV-BD+FX2NC-232ADP FX1N+FX1N-232-BD FX1N+FX1N-CNV-BD+FX0N-232ADP FX1N+FX1N-CNV-BD+FX2NC-232ADP FX2N+FX2N-232-BD FX2N+FX2N-CNV-BD+FX0N-232ADP FX2N+FX2N-CNV-BD+FX2NC-232ADP FX2NC+FX0N-232ADP FX2NC+FX2NC-232ADP	RS-232C	1.00 or later	1.00 or later	1.00 or later	1.20*2 or later	✓*1	8.2.2
MELSEC-A Series (CPU direct connection)		Connection type name [ACPU direct connection]					
Connection to programming port in A CPU							
AnN, AnA, AnS, AnSJ, AnSH, A1SH, A2C, A2CJ, A0J2H, AnU A2US(S1), A2USH, A1FX	RS-422	1.00 or later	1.00 or later	1.00 or later	1.00 or later	✓*1	9.2.1
MELSEC-A Series (computer link connection)		Connection type name [A computer link connection]					
Connection to computer link unit							
AJ71UC24, A1SJ71C24-R4, A1SJ71UC24-R4	RS-422	1.00 or later	1.00 or later	1.00 or later	1.20*2 or later	—	9.2.2
AJ71UC24, A1SJ71C24-R2, A1SJ71UC24-R2, A1CPUC24-R2, A2CCPU24	RS-232C						9.2.3
Motion controller (CPU direct connection)		Connection type name [ACPU direct connection]					
Connection to programming port in A CPU							
A171SCPU-S3, A171SHCPU, A172SHCPU, A173UHCPU, A273UHCPU	RS-422	1.00 or later	1.00 or later	1.00 or later	1.00 or later	✓*1	9.2.1
MELSEC-QnA/QnAS Series (CPU direct connection)		Connection type name [QnACPU direct connection]					
Connection to programming port in QnA CPU							
QnACPU, Q4ARCPU, Q2ACPU, Q2AHCPU, Q2ASCPU, Q2ASH(S1)CPU	RS-422	1.00 or later	3.00 or later	2.00 or later	1.00 or later	✓*1	10.2.1
MELSEC-QnA/QnAS Series (CPU direct connection)		Connection type name [QnA computer link connection]					
Connection to serial communication unit							
AJ71QC24, AJ71QC24-R4, A1SJ71QC24	RS-422	1.00 or later	3.00 or later	2.00 or later	1.20*2 or later	✓*1	10.2.2
AJ71QC24, AJ71QC24-R2, A1SJ71QC24, A1SJ71QC24-R2	RS-232C						10.2.3
MELSEC-A Series (computer link connection)		Connection type name [A computer link connection]					
Connection to computer link unit							
AJ71UC24, A1SJ71C24-R4 A1SJ71UC24-R4	RS-422 RS-232C	1.00 or later	3.00 or later	2.00 or later	1.20*2 or later	—	9.2.2 9.2.3

Connected equipment name and series name	RS-232C/ RS-422	OS version				Connection of two or more GOT units	Reference
		940W system	940 system	930 system	920 system		
MELSEC-Q Series (CPU direct connection) Connection type name [QCPU direct connection]							
Connection to programming port in Q CPU							
Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU	RS-232C	1.00 or later	4.10 or later	2.20 or later	1.00 or later	✓*1	11.2.1
Q00JCPU,Q00CPU,Q01CPU	RS-232C	1.30 or later	6.30 or later	4.30 or later	1.00 or later	✓*1	11.2.1
MELSEC-Q Series (CPU direct connection) Connection type name [QCPU direct connection]							
Connection to serial communication unit							
QJ71C24	RS-422	1.00 or later	4.10 or later	2.20 or later	1.20*2 or later	—	11.2.2
QJ71C24, QJ71C24-R2	RS-232C						11.2.3
MELSEC-Q Series (CPU direct connection) (Q multiple PLC system Ver. B or later) Connection type name [QCPU direct connection]							
Connection to programming port in Q CPU							
Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU	RS-232C	1.30 or later	6.30 or later	4.30 or later	1.00 or later	✓*1	11.2.1
Connection to serial communication unit							
QJ71C24	RS-422	1.30 or later	6.30 or later	4.30 or later	1.20*2 or later	—	11.2.2
QJ71C24, QJ71C24-R2	RS-232C						11.2.3
FX Series positioning unit (CPU direct connection) Connection type name [GM direct connection]							
Connection to programming port in GM CPU							
FX2N-10GM, FX2N-20GM, FX-10GM, FX-20GM, E-20GM	RS-422	1.10 or later	6.10 or later	4.10 or later	—	—	12.2.1
FREQROL Series inverter (CPU direct connection) Connection type name [INV direct connection]							
Connection to computer link (PU port, etc.)							
S500 Series (R-485 port built-in type only) A500 Series (PU port, FR-A5NR) E500 Series (PU port)	RS-422	1.10 or later	6.10 or later	4.10 or later	—	—	13.2.1

✓: Can connect —: Cannot connect

*1 Excluding the 920 system

*2 Excluding the 5 V type F920GOT-K.

3.1.3 PLC Manufactured by Other Companies

The table below describes the product evaluated in each series.

Connected equipment name and series name	RS-232C/ RS-422	OS version				Connection of two or more GOT units	Reference
		940W system	940 system	930 system	920 system		
General							
Microcomputer (general-purpose communication) Connection type name [Micro computer connection]							
Connection to serial communication port							
Personal computer or microcomputer board equipped with RS-232C or RS-422 interface	RS-422	1.00 or later	1.00 or later	1.00 or later	1.20* ² or later	✓* ¹	14.2.1
	RS-232C						14.2.2
Omron							
SYSMAC COM1/C200H Series (upper link) Connection type name [SYSMAC C]							
Connection to RS-232C port built in CPU							
CQM1 (built-in upper link) - CQM1-CPU21	RS-232C	1.00 or later	1.00 or later	1.00 or later	1.20* ² or later	—	15.2.2
CQM1H (built-in upper link) - CQM1H-CPU61	RS-232C	1.40 or later	6.40 or later	4.40 or later	1.20* ² or later	—	15.2.2
Connection to host link unit							
C200H/C200HS - C200H-CPU01 + C200H-LK202-V1 - C200HS-CPU31 + C200H-LK202-V1	RS-422	1.00 or later	1.00 or later	1.00 or later	1.20* ² or later	—	15.2.1
C200H/C200HS - C200H-CPU01 + C200H-LK201-V1 - C200HS-CPU31 + C200H-LK201-V1	RS-232C						15.2.2
SYSMAC CS1 Series (upper link) Connection type name [SYSMAC C]							
Connection to RS-232C port built in CPU							
CS1G-CPU45-V1	RS-232C	1.00 or later	6.00 or later	4.00 or later	1.20* ² or later	—	15.2.2
Connection to serial communication board/unit							
CS1W-SCB41 (port 1, port 2)	RS-422	1.00 or later	6.00 or later	4.00 or later	1.20* ² or later	—	15.2.1
	RS-232C						15.2.2
CS1W-SCU21 (port 1, port 2)	RS-232C						15.2.2
SYSMAC α Series (upper link) Connection type name [SYSMAC C]							
Connection to RS-232C port built in CPU							
C200HX-CPU44-Z	RS-232C	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	15.2.2
Connection to serial communication board							
C200HW-COM06-V1 (port A, port B)	RS-422	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	15.2.1
	RS-232C						15.2.2
SYSMAC CPM 1A/2A/2C Series (upper link) Connection type name [SYSMAC C]							
Connection to peripheral port built in CPU							
CPM1A-10CDR-A + CQM1-CIF01 (Level conversion of peripherique port) + Conversion connector [25pin → 9pin] CPM2C-10CDR-D + CPM2C-CIF01-V1 (RS232C et port peripherique) CPM2C-10CDR-D + CPM2C-CN111	RS-232C	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	15.2.1
Connection to RS-232C port built in CPU							
CPM2A-30CDR-A	RS-232C	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	15.2.2
SYSMAC CJ1 Series (upper link) Connection type name [SYSMAC C]							
Connection to RS-232C port built in CPU							
CJ1G-CPU44	RS-232C	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	15.2.2

Connected equipment name and series name	RS-232C/ RS-422	OS version				Connection of two or more GOT units	Reference
		940W system	940 system	930 system	920 system		
Fuji Electric							
FLEX-PC N Series (link unit)		Connection type name [FLEX-PC N]					
Connection to RS-232C port built in CPU							
NJ Series - NJ-CPU-B16	RS-232C	1.00 or later	1.00 or later	1.00 or later	—	—	16.2.2
Connection to link unit							
NB Series - NB-RS1-AC NJ Series - NJ-RS4 NS Series - NS-RS1	RS-422	1.00 or later	1.00 or later	1.00 or later	—	—	16.2.1
NB Series - NB-RS1-AC NJ Series - NJ-RS2 NS Series - NS-RS1	RS-232C						16.2.2
Yasukawa Electric							
Machine controller (memo bus connection)		Connection type name [Machine controller]					
Connection to RS-232C port built in CPU							
MP920, MP930, CP9200SH	RS-232C	1.00 or later	5.00 or later	3.00 or later	—	—	17.2.1
Connection to memo bus unit							
- MP920 + CP-217IF	RS-422	1.00 or later	5.00 or later	3.00 or later	—	—	17.2.1
- CP9200SH + CP-217IF	RS-232C						17.2.2
Matsushita Electric Works							
FP Series (CPU direct connection)		Connection type name [FP]					
Connection to COM port built in CPU							
FP0 Series - FP0-T32CT FP2SH Series - FP2-C2	RS-232C	1.10 or later	6.10 or later	4.10 or later	1.20* ² or later	—	18.2.1
Connection to tool port built in CPU							
FP0 Series - FP0-T32CT FP2SH Series - FP2-C2	RS-232C	1.10 or later	6.10 or later	4.10 or later	1.20* ² or later	—	18.2.1
Connection to COM port for communication with computer							
FP2SH Series - FP2-C2+FP2-CCU	RS-232C	1.10 or later	6.10 or later	4.10 or later	1.20* ² or later	—	18.2.1
FPΣ Series (CPU direct connection)		Connection type name [FP]					
Connection to tool port built in CPU							
FPG-C32T	RS-232C	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	
Connection to COM port for communication with computer							
FPG-C32T+FPG-COM1 (port 1) FPG-C32T+FPG-COM2 (port 1, port 2)	RS-232C	1.62 or later	6.62 or later	4.62 or later	1.20* ² or later	—	

✓: Can connect —: Cannot connect

*1 Excluding the 920 system

*2 Excluding the 5 V type F920GOT-K.

Connected equipment name and series name	RS-232C/ RS-422	OS version				Connection of two or more GOT units	Reference
		940W system	940 system	930 system	920 system		
Allen-Bradly							
SLC500 Series (CPU direct connection)				Connection type name [SLC500]			
Connection to port built in CPU							
SLC5/04 (1747-L541)	RS-232C	1.00 or later	2.00 or later	2.00 or later	1.20*2 or later	—	19.2.1
MicroLogix Series (CPU direct connection)				Connection type name [SLC500]			
Connection to port built in CPU							
MicroLogix 1000 (D Series and later) - 1761-L10BWA Micro Logix 1000 analog - 1761-L20AWA-5A Micro Logix 1200 - 1762-L24BWA Micro Logix 1500 - 11764-24BWA(base) + 1764-LSP(CPU)	RS-232C	1.00 or later	6.00 or later	4.00 or later	1.20*2 or later	—	19.2.1
SIEMENS AG							
SIMATIC S7-300/400 Series (CPU direct connection)				SIMATIC S7 Series (SIMATIC S7)			
Connection to port built in CPU							
S7-313 (6ES7 1AD03-0AB0) + HMI adapter (6ES7 972-0CA11-0XA0)	RS-232C	1.00 or later	5.00 or later	3.00 or later	1.20*2 or later	—	20.2.1
SIMATIC S7-200 Series (CPU direct connection)				SIMATIC S7 Series (SIMATIC S7)			
Connection to port built in CPU							
S7-216-2 (6ES7 216-2BD00-0XB0) + PC/PPI cable (6ES7 901-3BF20-0ZA0)	RS-232C	1.20 or later	6.20 or later	4.20 or later	—	—	20.2.1

✓: Can connect —: Cannot connect

*1 Excluding the 920 system

*2 Excluding the 5 V type F920GOT-K.

3.1.4 Others

The table below describes the product evaluated in each series.

Connected equipment name and series name	RS-232C/ RS-422	OS version				Connection of two or more GOT units	Reference
		940W system	940 system	930 system	920 system		
General							
General-purpose printer for RS-232C		SIMATIC S7 Series (RS-232C general-purpose printer)					
Connection to RS-232C port							
Connection to ESC/P compatible printer equipped with built-in RS-232C interface LBP450 (laser printer for A4 size) [Cannon] LP8000SX (laser printer for A4 size) [EPSON]	RS-232C	1.00 or later	1.00 or later	1.00 or later	—	—	21.2.1
Bar code reader		SIMATIC S7 Series (Bar code reader)					
Connection to RS-232C port							
BCH5432-STA [Nihon Denki Seiki]	RS-232C	1.00 or later	2.00 or later	2.00 or later	—	—	21.2.1

✓: Can connect —: Cannot connect

3.2 Version of Screen Creation Software and Correspondence to GOT-F900

Three types of screen creation software are offered the SW□D5C-GTD2-E, SW□D5C-GOTR-PACKE and FX-PCS-DU/WIN-E as follows.

Types of screen creation software

Screen creation software	Name	Generic name
SW□D5C-GTWS-E SW□D5C-GTWK2-E SW□D5C-GTD2-E	GT Designer2	Screen creation software
SW□D5C-GTWORKS-E SW□D5C-GOTR-PACKE	GT Designer	
FX-PCS-DU/WIN-E	DU/WIN	

Applicable GOT-F900 Series models and the correspondence to the connected equipment (related to the OS version also) vary depending on the version of the screen creation software. In this section, you can check the version of your screen creation software and confirm applicable GOT models and connectable equipment.

The table in Section 3.2.2 shows the screen creation software version corresponding to each GOT-F900. The table in Section 3.2.3 shows the screen creation software version corresponding to each connected equipment. Compare these two tables. The newer version is required.

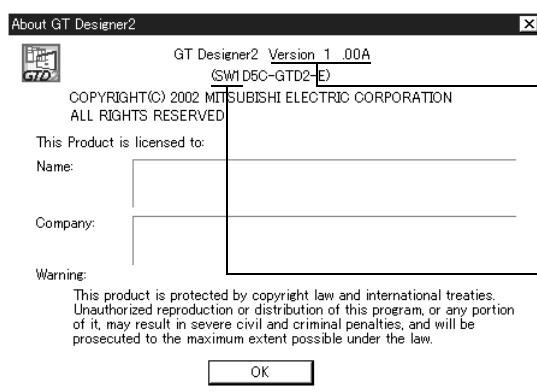
3.2.1 How to Conform Version of Screen Creation Software

You can confirm the version by displaying the help screen after starting up the screen creation software in the personal computer or by confirming the contents indicated on the FD or CD-ROM of the product.

1) When confirming the version using the help function of the software

For the GT Designer2, GT Designer and DU/WIN, you can confirm the version by selecting [Help (H)]-[About (A)] from the menu bar.

a) GT Designer2



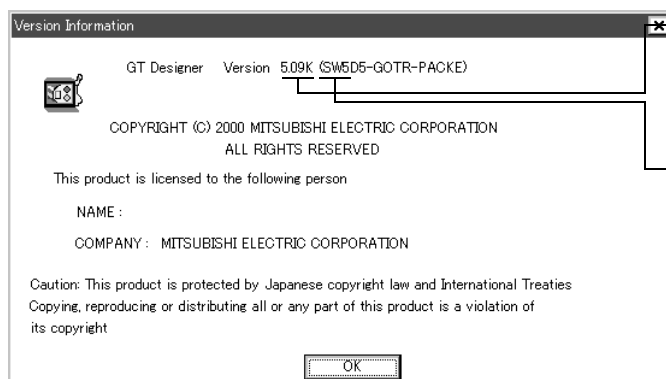
Version ("1.00A" in this case)

"SW1" indicates the major version.

SW□D5C-GTD2-J (Japanese)

SW□D5C-GTD2-E (English)

b) GT Designer



In the case of Version SW5 or later

Version 5.09K

Small version

SW5

SW□D5C-GOTR-PACKE

"SW5" indicates the large version. An alphabet at the end indicates the small version.

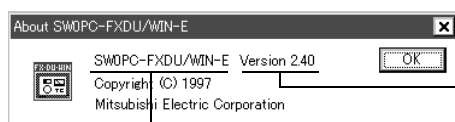
In the case of Version SW4 or former

An alphabet at the end indicates the small version.

Version SW□ 00A

Small version

c) DU/WIN

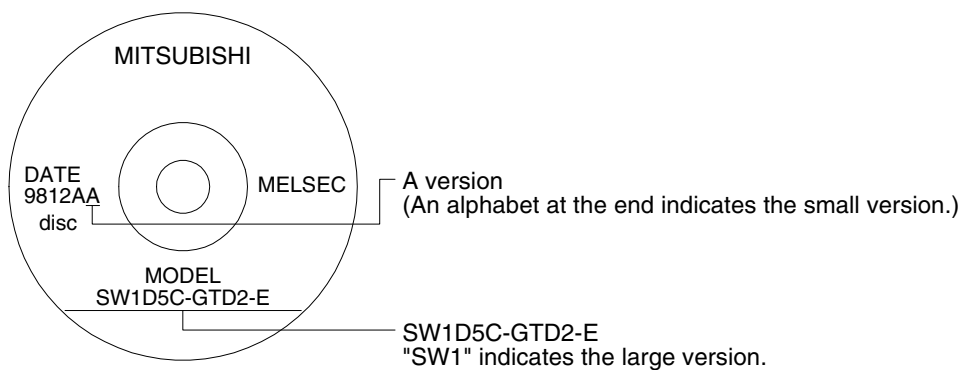
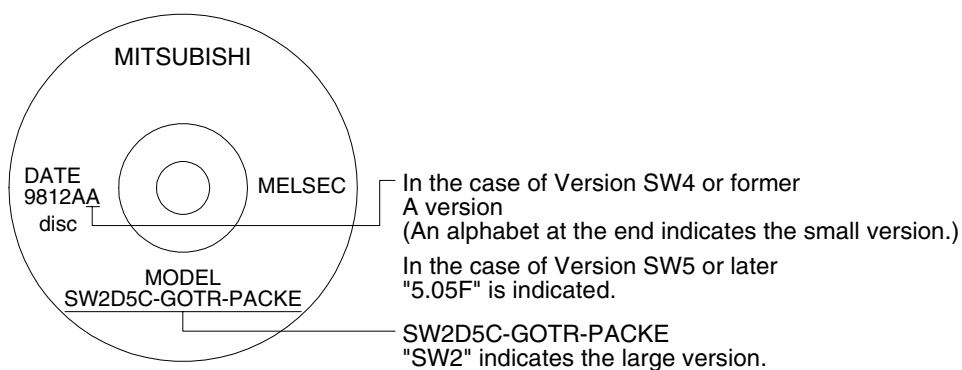
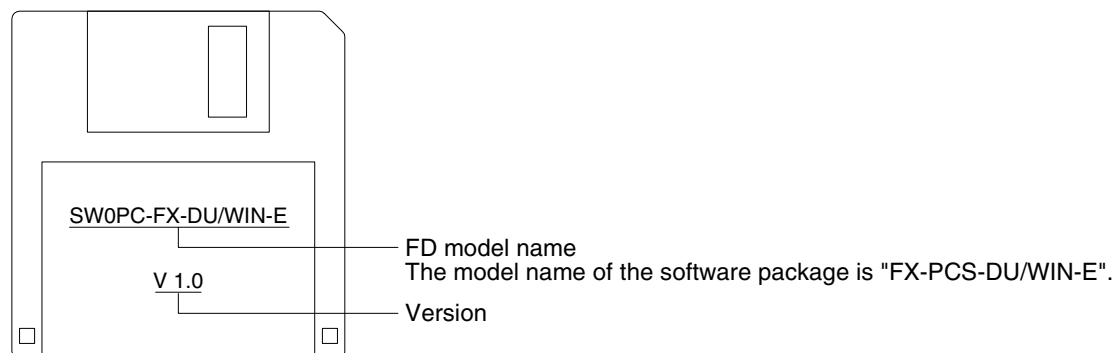


Version

Model name

2) When confirming the version through the contents indicated on the media

You can confirm the version by checking the contents indicated on the media of the product.

a) GT Designer2 (CD-ROM)**b) GT Designer (CD-ROM)****c) DU/WIN (FD)**

3.2.2 Screen Creation Software Version Corresponding to GOT-F900 Series

Japanese version

GOT-F900 Series	SW□D5C-GTD2-J Version	SW□D5C-GOTR-PACK Version	FX-PCS-DU/WIN Version
F940WGOT	SW1-A (1.00A)	SW5-F (5.05F)	2.50
F940GOT	SW1-A (1.00A)	SW1-A	2.00
F943GOT	SW1-A (1.00A)	SW1-A	2.00
F930GOT-K	SW1-A (1.00A)	SW5-26C (5.26C)	—
F930GOT	SW1-A (1.00A)	SW1-H	2.20
F933GOT	SW1-A (1.00A)	SW1-H	2.20
F920GOT-K (5V)	SW1-A (1.00A)	SW5-26C (5.26C)	2.70
F920GOT-K (24V)	SW1-C (1.02C)	—	—
F940 Handy GOT	SW1-A (1.00A)	SW1-D	2.10
F940 Handy GOT (RH model)	SW1-A (1.00A)	SW5-F (5.05F)	2.50
F943 Handy GOT	SW1-A (1.00A)	SW1-D	2.10
F943 Handy GOT (RH model)	SW1-A (1.00A)	SW5-F (5.05F)	2.50
ET-900	SW1-A (1.00A)	SW1-D	2.00

- "□" of the "SW□D5C-GOTRE-PACK" and "SW□DC-GTD2-E" indicates a number.

English version

GOT-F900 Series	SW□D5C-GTD2-E	SW□D5C-GOTRE-PACK Version	FX-PCS-DU/WIN-E Version
F940WGOT	SW1-C (1.02C)	SW5-F (5.05F)	2.50
F940GOT	SW1-C (1.02C)	SW1-E	2.00
F930GOT-K	SW1-C (1.02C)	SW5-26C (5.26C)	2.70
F930GOT	SW1-C (1.02C)	SW1-H	2.30
F920GOT-K (5V)	SW1-C (1.02C)	SW5-26C (5.26C)	2.70
F920GOT-K (24V)	SW1-C (1.02C)	—	—
F940 Handy GOT	SW1-C (1.02C)	SW1-D	2.10
F940 Handy GOT (RH model)	SW1-C (1.02C)	SW5-F (5.05F)	2.50
F943 Handy GOT	SW1-C (1.02C)	SW1-D	2.10
F943 Handy GOT (RH model)	SW1-C (1.02C)	SW5-F (5.05F)	2.50

- "□" of the "SW□D5C-GOTRE-PACK" and "SW□DC-GTD2-E" indicates a number.

3.2.3 Screen Creation Software Corresponding to Each Connected Equipment

Products in Japanese

Connected equipment (abbreviation)	SW□D5C-GTD2-J Version	SW□D5C-GOTR-PACK Version	FX-PCS-DU/WIN Version
Mitsubishi			
FXCPU direct connection	SW1-A (1.00A)	SW1-A	2.00
ACPU direct connection			
A computer link			
QnACPU direct connection	SW1-A (1.00A)	SW2-A	2.30
QnA computer link			
QCPU direct connection	SW1-A (1.00A)	SW4-F	2.40
Q computer link			
QCPU direct connection (multi CPU system)	SW1-A (1.00A)	SW5-P (5.13P)	—
Q computer link (multi CPU system)			
GM direct connection (FX positioning unit)	SW1-A (1.00A)	SW5-K (5.09K)	2.50
INV direct connection (inverter)			
Other companies			
Microcomputer connection (general-purpose communication)	SW1-A (1.00A)	SW1-A	2.00
SYSMAC C by Omron	SW1-A (1.00A)	SW1-A	
FLEX-PC N by Fuji Electric	SW1-A (1.00A)	--(Not applicable)	
CP9200SH by Yasukawa Electric	SW1-A (1.00A)	SW4-F	--(Not applicable)
FP by Matsushita Electric Works	SW1-A (1.00A)	SW5-K (5.09K)	2.60
SLC500 by Allen-Bradley	SW1-A (1.00A)	SW1-H	2.30
MicroLogix by Allen-Bradley	SW1-A (1.00A)	SW5-F (5.05F)	2.50
SIMATIC S7-300 by Siemens AG	SW1-A (1.00A)	SW5-F (5.05F)	2.40
SIMATIC S7-200 by Siemens AG	SW1-A (1.00A)	SW5-P (5.13P)	2.60
Others			
Printer (with built-in RS-232C)	SW1-A (1.00A)	SW1-A	2.00
Bar code reader	SW1-A (1.00A)	SW1-H	2.20 ^{*1}
CC-Link	SW1-A (1.00A)	SW5-P (5.13P)	2.40

- "□" of the "SW□D5C-GOTRE-PACK" and "SW□DC-GTD2-E" indicates a number.

*1 The F930GOT is applicable in Version 2.30 and later.

Products in English

Connected equipment (abbreviation)	SW□D5C-GTD2-E	SW□D5C-GOTR-PACKE Version	FX-PCS-DU/WIN-E Version
Mitsubishi			
FXCPU direct connection	SW1-C (1.02C)	SW1-E	2.00
ACPU direct connection	SW1-C (1.02C)		
A computer link	SW1-C (1.02C)		
QnACPU direct connection	SW1-C (1.02C)	SW2-A	2.30
QnA computer link	SW1-C (1.02C)		
QCPU direct connection	SW1-C (1.02C)	SW4-F	2.40
Q computer link	SW1-C (1.02C)		
QCPU direct connection (multi CPU system)	SW1-C (1.02C)	SW5-P (5.13P)	—
Q computer link (multi CPU system)	SW1-C (1.02C)		
GM direct connection (FX positioning unit)	SW1-C (1.02C)	SW5-K (5.09K)	2.50
INV direct connection (inverter)	SW1-C (1.02C)		
Other companies			
Microcomputer connection (general-purpose communication)	SW1-C (1.02C)	SW1-E	2.00
SYSMAC C by Omron	SW1-C (1.02C)		
FLEX-PC N by Fuji Electric	SW1-C (1.02C)	Not applicable	
CP9200SH by Yasukawa Electric	SW1-C (1.02C)	SW4-F	—
FP by Matsushita Electric Works	SW1-C (1.02C)	SW5-K (5.09K)	2.60
SLC500 by Allen-Bradley	SW1-C (1.02C)	SW1-H	2.30
MicroLogix by Allen-Bradley	SW1-C (1.02C)	SW5-F (5.05F)	2.50
SIMATIC S7-300 by Siemens AG	SW1-C (1.02C)	SW5-F (5.05F)	2.40
SIMATIC S7-200 by Siemens AG	SW1-C (1.02C)	SW5-P (5.13P)	2.52
Others			
Printer (with built-in RS-232C)	SW1-C (1.02C)	SW1-E	2.00
Bar code reader	SW1-C (1.02C)	SW1-H	2.30

- "□" of the "SW□D5C-GOTRE-PACKE" and "SW□DC-GTD2-E" indicates a number.

3.3 Device Names Which can be Monitored

This section explains the device range of the PLC available in the GOT-F900. The maximum device range which can be set in the screen creation software is shown here. The device specifications vary depending on the model of the PLC even if the series name is equivalent. (Example: In the FX Series, the FX1N PLC has fewer devices than in the FX2N PLC.)

When looking at the table, change the device range shown in the table with the device range available in the actually connected PLC.

3.3.1 Devices in GOT-F900

The table below shows intrinsic devices built in the GOT-F900.

Because these internal devices have no relevance to the devices in the connected PLC or the memory of the microcomputer board, they can be used without regard to the connected equipment.

These internal devices in the GOT-F900 can be rewritten by the status monitoring function, the switch function and the numeric value input function, and used for lamp indicator, numeric value display, switch condition, etc.

Available screen creation software

GT Designer2 and GT Designer from the first version
DU/WIN from Version 2.50 and later

Allocation of devices for internal processing

Device name		Available range		Device number representation
Bit device	GB (GOT internal device)	GB0 to GB131	Not available except devices in table below	Decimal
		GB132 to GB255	Available	
		GB256 to GB1023	Available (excluding the F920GOT-K)	
Word device	GD (GOT internal device)	GD0 to GD99	Not available except devices in table below	Decimal
		GD100 to GD127	Available	
		GD128 to GD1023	Available (excluding the F920GOT-K)	

- GB 0 to GB 131 and GD 0 to GD 99 are used for the processing inside the GOT-F900.
Note, however, that the devices with functions shown below are available for user use.

Device	Function
GD0	Display of current time (second)*2
GD1	Display of current time (minute)*2
GD2	Display of current time (hour)*2
GD3	Display of current time (day)*2
GD4	Display of current time (month)*2
GD5	Display of current time (year)*2
GD6	Display of current time (day of week)*2
GD7	Not to be used
GD8, GD9	Upper limit of input numerical value (32 bit)
GD10, GD11	Lower limit of input numerical value (32 bit)
GD12	Numerical value, Ascii input
GD13 to GD99	Not to be used
GD100 to GD1023	For user's use

*2 Which cannot be input or changed

Device	Function
GB0 to GB12	Not to be used
GB13	Communication error
GB14, GB15	Not to be used
GB16	Buzzer (Issued once) *1
GB17	Buzzer (Issued three times) *1
GB18	Buzzer (Issued continuously) *1
GB19 to 131	Not to be used
GB132 to GB1023	For user's use

*1 Buzzer is available in the following OS.

F940WGOT	Ver. 1.40 or later
F940GOT	Ver. 6.40 or later
F930GOT	Ver. 4.40 or later
F930GOT-K	Ver. 4.60 or later (From first product)
F920GOT-K	Ver. 1.00 or later (From first product)
Handy GOT	Ver. 6.40 or later

3.3.2 PLC by Mitsubishi

1) MELSEC-F FX Series

Device name			Setting range		Device number representation	
			GT Designer (2)	DU/WIN		
Bit device	Input (X)		X000~X377	X000~X377	Octal	
	Output (Y)		Y000~Y377	X000~X377		
	Auxiliary relay (M)		M0000~M3071	M0000~M3071		
	Special auxiliary relay (M)		M8000~M8255	M8000~M8255		
	State (S)		S0~S999	S0~S999		
	Timer contact (T)		T0~T255	T0~T255		
	Counter contact (C)		C000~C255	C0~C255		
	GOT internal bit register (GB) *1		GB132~GB1023	GB132~GB1023		
Word device	Timer (T)		Present value	T0~T255	T0~T255	Decimal
			Set value *2	TS0~TS255	—	
	Counter (C)	16 bits	Present value	C0~C199	C0~C199	
			Set value *2	CS0~CS199		
		32 bits	Present value	C200~C255	C200~C255	
			Set value *2	CS200~CS255		
	Data register (D) (Including file register*2)		D0~D7999	D0~D7999		
	File register (D)		D1000~D7999	D1000~D7999		
	Special data register (D)		D8000~D8255	D8000~D8255		
	Index register		Z *3	Z		
			V *3	V		
	GOT internal data register (GD) *1		GD100~GD1023	GD100~GD1023		

- In specifying word devices for the bar code reader, C200 to C255 and CS200 to CS255 are not available.

*1 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

*2 In data changes, the condition shown below is present.

Condition enabling data changes

While the GOT is connected to the FX Series PLC, data cannot be changed in set values (specified directly) of timers and counters and file registers in the following condition.

PLC status		While PLC is stopped				While PLC is running			
Memory cassette attached to PLC	Memory type	RAM	EEPROM	EPROM		RAM	EEPROM	EPROM	
	Write-protect switch status	—	OFF	ON	—	—	OFF	ON	—
Entry code	Present	✓	✓	✕*1	✕*1	✓	✕*3	✕*1	✕*1
	Not present	✕*2				✕*2			

The following error messages are displayed on the screen only when a timer, counter or file register is accessed through a Numeric Input or ASCII input.

*1 When data of a set value (specified directly) of a timer or counter is tried to be changed, the error message "WRITE IS PROHIBITED." is displayed. (Set values of timers and counters can be changed if they are specified indirectly using data registers.)

When data of a file register is tried to be changed, the error message "WRITE IS PROHIBITED." is displayed.

*2 The error message "THE OPERATION IS DISABLED BY ENTRY CODE." is displayed.

*3 The error message "PLC IS RUNNING." is displayed.

*3 Available only in the GT Designer2.

2) MELSEC-A Series (including motion controller)

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Input (X)	X0~X1FFF	X0~X0FFF	Hexadecimal
	Output (Y)	Y0~Y1FFF	Y0~Y0FFF	
	Internal relay (M) *1	M0~M8191	M0~M8191	Decimal
	Latch relay (L) *1	L0~L8191	L0~L8191	
	Annunciator (F)	F0~F2047	F0~F2047	
	Link relay (B)	B0~B1FFF	B0~B1FFF	Hexadecimal
	Special internal relay (M)	M9000~M9255	M9000~M9255	Decimal
	Timer (T)	Contact	TT0~TT2047	
		Coil	TC0~TC2047	
	Counter (C)	Contact	CT0~CT1023	
		Coil	CC0~CC1023	
	GOT internal bit register (GB) *2	GB132~1023	GB132~1023	
Word device	Data register (D)	D0~D8191	D0~D8191	Hexadecimal
	Special data register (D)	D9000~D9255	D9000~D9255	
	Link register (W)	W0~W1FFF	W0~W1FFF	
	Timer (T)	Present value	TN0~TN2047	Decimal
		Set value *3	TS0~TS2047	
	Counter (C)	Present value	CN0~CN1023	
		Set value *3	CS0~CS1023	
	File register (R) *3	R0~R8191	R0~R8191	
	Accumulator (A)	A0~A1	—	
	Index register (Z, V) *4	Z0~Z6(Z0=Z)	Z	
		V0~V6(V0=V)	V	
	GOT internal data register (GD) *2	GD100~1023	GD100~1023	

*1 Latch relays (L) are treated as internal relays (M) in the GOT-F900.

*2 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

*3 In data changes, the condition shown below is present.

Condition enabling data changes

While the GOT is connected to the A Series PLC or A Series computer link unit, data cannot be changed in set values (specified directly) of timers and counters and file registers in the following condition.

PLC status		While PLC is stopped		While PLC is running	
Memory type		RAM	ROM	RAM	ROM
Entry code	Present	✓	✕*1	✓	✕*1
	Not present	✕*2		✕*2	

The following error messages are displayed on the screen only when a timer, counter or file register is accessed through a Numeric Input or ASCII input.

*1 When data of a set value (specified directly) of a timer or counter is tried to be changed, the error message "WRITE IS PROHIBITED." is displayed. (Set values of timers and counters can be changed if they are specified indirectly using data registers.)

When data of a file register is tried to be changed, the error message "WRITE IS PROHIBITED." is displayed.

*2 The error message "THE OPERATION IS DISABLED BY ENTRY CODE." is displayed.

*4 In computer link connection, index registers (Z, V) cannot be monitored or written.

3) MELSEC-QnA/Q (Q mode) Series

Device name			Setting range		Device number representation
			GT Designer (2)	DU/WIN	
Bit device	Input (X)		X0~X1FFF	X0~X1FFF	Hexadecimal
	Output (Y)		Y0~Y1FFF	Y0~Y1FFF	
	Internal relay (M)		M0~M32767	M0~M32767	Decimal
	Latch relay (L)		L0~L32767	L0~L32767	
	Annunciator (F)		F0~F32767	F0~F32767	Hexadecimal
	Link relay (B)		B0~B7FFF	B0~B7FFF	
	Special link relay (SB)		SB0~SB7FF	SB0~SB7FF	Decimal
	Timer (T)	Contact	TT0~TT32767	T0~T32767	
		Coil	TC0~TC32767	—	
	Counter (C)	Contact	CT0~CT32767	C0~C32767	
		Coil	CC0~CC32767	—	
	Special relay (SM)		SM0~SM2047	SM0~SM2047	
	Retentive timer (ST)	Contact	SS0~SS32767	SS0~SS32767	
		Coil	SC0~SC32767	SC0~SC32767	
	Step relay (S)		S0~S32767	S0~S32767	
	GOT internal bit register (GB) *1		GB132~GB1023	GB132~GB1023	
Word device	Data register (D)		D0~D32767	D0~D32767	Hexadecimal
	Special register (SD)		SD0~SD2047	SD0~SD2047	
	Link register (W)		W0~W7FFF	W0~W7FFF	
	Special link register (SW)		SW0~SW7FF	SW0~SW7FF	
	Timer (T)	Present value	TN0~TN32767	T0~T32767	Decimal
		Set value	—	—	
	Counter (C)	Present value	CN0~CN32367	C0~C32367	
		Set value	—	—	
	Retentive timer (present value) (SN)		SN0~SN32767	SN0~SN32767	
	File register (R)		R0~R32767 *2	R0~R32767 *2	
	Index register (Z)		Z0~Z15	Z	
	GOT internal data register (GD) *1		GD100~GD1023	GD100~GD1023	

*1 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

*2 File registers in a block changed over by the RSET instruction are regarded as targets.

Restriction in set monitor in computer link for A Series

When a computer link unit for the A Series is attached to the QnA CPU and the GOT-F900 is connected to the unit, the set monitor range is equivalent to that in the AnA CPU, and the restriction shown in the table below is applied (by the restriction in computer link).

Device name			Setting range		Device number representation
			GT Designer (2)	DU/WIN	
Word device	Timer (Present value)		TN0 to TN255	T0 to T255	Decimal
	Timer (Set value)		—	—	
	Counter (Present value)		CN0 to C255	CN0 to C255	
	Counter (Set value)		—	—	
	File register		—	—	

—: Monitor and write disabled

Specification of PLC number when using Q multiple PLC system

- Specify the PLC number when appointing the device.
- 0: CPU connected (Control PLC if connected to the link)
- 1 to 4: CPU with the specified number

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2	Outline
3	Specifications
4	Installation and Wiring of F940GOT
5	Installation and Wiring of Handy GOT
6	Connection of Peripheral Equipment
7	Connection of Two or More GOT Units
8	Connection of MELSEC-F FX Series PLC
9	Connection of MELSEC-A Series PLC
10	Connection of MELSEC-QnA Series PLC

4) FX Series GM positioning unit (GM direct connection)

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Input (X) *1	X0~X377	X0~X377	Octal
	Output (Y)	Y0~Y67	Y0~Y67	
	Internal relay (M)	M0~M511	M0~M511	Decimal
	Special auxiliary relay (SM)	M9000~M9175	M9000~M9175	
	GOT internal bit register (GB)	GB132~1023	GB132~1023	
Word device	Data register (D)	D0~D3999	D0~D3999	
	Special data register (SD)	D9000~D9313	D9000~D9313	
	File register (R)	D4000~D6999	D4000~D6999	
	Index register (Z, V)	Z0~Z6 (32 bits)	Z (32 bits)	
		V0~V6 (16 bits)	V (16 bits)	
	GOT internal data register (GD)	GD100~1023	GD100~1023	

*1 Devices cannot be written.

5) FREQROL Series inverter (INV direct connection)

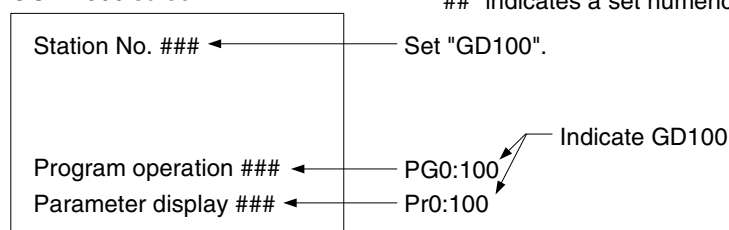
Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Control status (S)	S0:□~S7:□		Decimal
	GOT internal bit register (GB)	GB132~1023		
Word device	Alarm code (A)	A0:□~A7:□		
	Parameter (Pr)	Pr0:□~Pr993:□		
	Program operation (PG)	PG0:□~PG89:□		
	Special parameter (SP)	SP108:□~SP127:□		
	GOT internal data register (GD)	GD100~1023		

"□" indicates the station number of the monitored inverter.

Specify the station number using either of the following methods.

- Station No. specification (direct) : Specify the station number of the inverter when setting the device.
[Available setting range: 0 to 31]
- Station No. specification (indirect) : Specify the station number of the inverter indirectly using 16-bit GOT internal registers (GD100 to GD115) when setting the device.
Multiple inverters can be changed on one screen.
[Available setting range: 100 to 115]
* The station No. corresponds to each device of GD100 to GD115.

GOT-F900 screen



3.3.3 PLC Units Manufactured by Other Companies

1) Microcomputer board (general-purpose communication)

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Bit data (M)	M0~M2047 *1	M0~M2047	Decimal
	Special memory (M) *2	M8000~M8063	M8000~M8063	
	GOT internal bit register (GB) *4	GB132~GB1023	GB132~GB1023	
Word device	Word data (D) *3	D0~D4095	D0~D4095	
	Special memory (M) *2	D8000~D8015	D8000~D8015	
	GOT internal data register (GD) *4	GD100~GD1023	GD100~GD1023	

*1 The bit data (M) is available in the GT Designer version SW1-E and later.

*2 The special memory is offered for special application (such as interrupt output and communication error information) in the GOT.

*3 In the F920GOT-K, D0 to D1023 are available.

*4 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

2) SYSMAC C Series manufactured by Omron

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	I/O relay	..000000~..614315	00000~51115	Decimal
	Internal auxiliary relay	WR00000~WR51115	—	
	Data link relay (LR)	LR00000~LR19915	L0000~L6315	
	Auxiliary memory relay (AR)	AR00000~AR95915 *1	A0000~A2715	
	Holding relay (HR)	HR00000~HR51115	H0000~H9915	
	Timer contact (TIM)	TIM0~TIM2047	T000~T511	
	Counter contact (CNT)	CNT0~CNT2047	C000~C511	
	GOT internal bit register (GB) *3	GB132~GB1023	GB132~GB1023	
Word device	Data memory (DM)	DM0~DM9999	D0000~D9999	Decimal
	Timer (Present value) (TIM)	TIM0~TIM2047 *2	T000~T511	
	Counter (Present value) (CNT)	CNT0~CNT2047 *2	C000~C511	
	Extension data memory (EM) (current bank)	EM0000~EM9999	—	
	Extension data memory (E0 to EC: 13 banks)	E00000~E09999 : EC0000~EC9999	—	Hexadecimal
	GOT internal data register (GD) *3	GD100~GD1023	GD100~GD1023	Decimal

*1 When the SYSMAC α , CPM1A/2A/2C, CS1 or CS1J Series is connected, auxiliary memory relays (AR) cannot be set to ON or OFF. Do not use AR in the key operation setting (bit).

*2 Set values cannot be read.

*3 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

3) FLEX-PC N Series manufactured by Fuji Electric

Device name		Setting range		Device number representation
		GT Designer2	DU/WIN	
Bit device	Input (X)	X0~X7FF	X0~X7FF	Hexadecimal
	Output (Y)	Y0~Y7FF	Y0~Y7FF	
	Internal relay (M)	M0~M1FFF	M0~M1FFF	
	Latch relay (L)	L0~L1FFF	L0~L1FFF	
	State (S)	S0~S7FF	S0~S7FF	
	Special internal relay (M)	M800~M81FF	M800~M81FF	
	GOT internal bit register (GB)	GB132~GB1023	GB132~GB1023	
Word device	Timer (T)	T0~T3FF	T0~T3FF	
	Counter (C)	C0~C1FF	C0~C1FF	
	Data register (D)	D0~D2FFF	D0~D2FFF	
	Special data register (D)	D8000~D81FF	D8000~D81FF	
	Link register (W)	W0~W3FFF	W0~W3FFF	
	File register (R)	R0~R7FFF	R0~R7FFF	
	GOT internal data register (GD)	GD100~GD1023	GD100~GD1023	

4) Machine controller MP900/CP9200SH Series manufactured by Yasukawa Electric

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Input relay (IB)	IB0~IBFFFF	—	Hexadecimal
	Coil (MB)	MB0~MB4095F	—	*1
	GOT internal bit register (GB)	GB132~GB1023	—	Decimal
Word device	Input register (IW)	IW0~IW7FFF	—	Hexadecimal
	Holding register (MW)	MW0~MW32767	—	Hexadecimal
	GOT internal data register (GD)	GD100~GD1023	—	Decimal

*1 Word address (decimal) + Bit position (hexadecimal)

5) MEWNET-FP Series manufactured by Matsushita Electric Works

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Input relay (X) ^{*3}	X0000~X511F	X0000~X511F	Decimal ^{*6}
	Output relay (Y)	Y0000~Y511F	Y0000~Y511F	
	Internal relay (R) ^{*4}	R0000~R910F	R0000~R910F	
	Link relay (L) ^{*1}	L0000~L639F	L0000~L639F	
	Error alarm relay (E) ^{*2*3}	E0~E2047	E0~E2047	Decimal
	Timer contact (T) ^{*3}	T0~T3071	T0~T3071	
	Counter contact (C) ^{*3}	C0~C3071	C0~C3071	
	GOT internal bit register (GB) ^{*7}	GB132~GB1023	GB132~GB1023	
Word device	Elapsed value of timer/counter (EV)	EV0~EV3071	EV0~EV3071	Decimal
	Set value of timer/counter (SV)	SV0~SV3071	SV0~SV3071	
	Data register (DT) ^{*4}	DT0~DT16383	DT0~DT16383	
	Link register (LD) ^{*1}	LD0~LD8447	LD0~LD8447	
	File register (FL) ^{*1*5}	FL0~FL32764	FL0~FL32764	
	GOT internal data register (GD) ^{*7}	GD100~GD1023	GD100~GD1023	

Pulse relays (P) and index registers (IX, IY and I) are not available.

^{*1} FP0 and FPΣ are excluded.

^{*2} Only FP2SH is available.

^{*3} Write is disabled.

^{*4} Special relays (R9000 to R910F) and special data registers (DT9000 to DT9255) are included also. However, access is disabled in special data registers from D90000 in the FP Series.

^{*5} Access is enabled only in the bank 0.

^{*6} Bit device number (3-digit decimal number) + Bit position (1-digit hexadecimal number)

^{*7} GB132 to GB255 and GD100 to GD127 in the F920GOT-K

6) SLC500/MicroLogix Series manufactured by Allen-Bradley

a) SLC500 Series

i) GT Designer (earlier than Version 5.05F) and DU/WIN (earlier than Version 2.50)

Device name		Setting range		Device number representation
		GT Designer	DU/WIN	
Bit device	Bit (B)	B0030000~B003255F B0100000~B255255F	B0030000~B003255F B0100000~B255255F	Hexadecimal
	Timer (T) (timing bit)	TT0040000~TT0042550 TT0100000~TT2552550	—	Decimal
	Timer (T) (completion bit)	TN0040000~TN0042550 TN0100000~TN2552550	T0040000~T0042550 T0100000~T2552550	
	Counter (C) (up counter)	CU0050000~CU0052550 CU0100000~CU2552550	—	
	Counter (C) (down counter)	CD0050000~CD0052550 CD0100000~CD2552550	—	
	Counter (C) (completion bit)	CN0050000~CN0052550 CN0100000~CN2552550	C0050000~C0052550 C0100000~C2552550	
	GOT internal bit register (GB)	GB132~GB1023	—	
Word device	Timer (T) *1 (set value)	TP004000~TP004255 TP010000~TP255255	T004000~T004255 T010000~T255255	Decimal
	Timer (T) *1 (current value)	TA004000~TA004255 TA010000~TA255255		
	Counter (T) (set value)	CP005000~CP005255 CP010000~CP255255	C004000~C005255 C010000~C255255	
	Counter (T) (current value)	CA005000~CA005255 CA010000~CA255255		
	Integer (N)	NO07000~N007255 NO10000~N255255	NO07000~N007255 NO10000~N255255	
	GOT internal data register (GD)	GD100~GD1023	—	

*1 32 bits cannot be specified.

- ii) GT Designer 2 (Version 1.02C or later),
GT Designer (Version 5.05F or later) and DU/WIN (Version 2.50 or later)

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Bit (B)	B3:0/0~B3:255/15 B10:0/0~B255:255/15	B3:0/0~B3:255/15 B10:0/0~B255:255/15	Hexadecimal
	Timer (T) (timing bit)	T4:0/TT~T4:255/TT T10:0/TT~T255:255/TT	T4:0/TT~T4:255/TT T10:0/TT~T255:255/TT	Decimal
	Timer (T) (completion bit)	T4:0/DN~T4:255/DN T10:0/DN~T255:255/DN	T4:0/DN~T4:255/DN T10:0/DN~T255:255/DN	
	Counter (C) (up counter)	C5:0/CU~C5:255/CU C10:0/CU~C255:255/CU	C5:0/CU~C5:255/CU C10:0/CU~C255:255/CU	
	Counter (C) (down counter)	C5:0/CD~C5:255/CD C10:0/CD~C255:255/CD	C5:0/CD~C5:255/CD C10:0/CD~C255:255/CD	
	Counter (C) (completion bit)	C5:0/DN~C5:255/DN C10:0/DN~C255:255/DN	C5:0/DN~C5:255/DN C10:0/DN~C255:255/DN	
	GOT internal bit register (GB) *2	GB132~GB1023	GB132~GB1023	
Word device	Timer (T) *1 (set value)	T4:0.PRE~T4:255.PRE T10:0.PRE~T255:255.PRE	T4:0.PRE~T4:255.PRE T10:0.PRE~T255:255.PRE	Decimal
	Timer (T) *1 (current value)	T4:0.ACC~T4:255.ACC T10:0.ACC~T255:255.ACC	T4:0.ACC~T4:255.ACC T10:0.ACC~T255:255.ACC	
	Counter (T) *1 (set value)	C5:0.PRE~C5:255.PRE C10:0.PRE~C255:255.PRE	C5:0.PRE~C5:255.PRE C10:0.PRE~C255:255.PRE	
	Counter (T) *1 (current value)	C5:0.ACC~C5:255.ACC C10:0.ACC~C255:255.ACC	C5:0.ACC~C5:255.ACC C10:0.ACC~C255:255.ACC	
	Integer (N)	N7:0~N7:255 N10:0~N255:255	N7:0~N7:255 N10:0~N255:255	
	GOT internal data register (GD) *2	GD100~GD1023	GD100~GD1023	

*1 32 bits cannot be specified.

*2 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

File number and element specification range

Specify the file number and an element in decimal numbers. However, specify the bit position of a bit (B) in a hexadecimal number.

Device name (symbol)		File number *1		Available element specification range
Bit device	Bit (B)	3	10~255	0~255 *2
	Timer (time counting bit) (TT)	4	10~255	0~255
	Timer (completion bit) (TN)	4	10~255	0~255
	Counter (effective up-count bit) (CU)	5	10~255	0~255
	Counter (effective down-count bit) (CD)	5	10~255	0~255
	Counter (completion bit) (CN)	5	10~255	0~255
Word device	Timer (set value) (TP)	4	10~255	0~255
	Timer (present value) (TA)	4	10~255	0~255
	Counter (set value) (CP)	5	10~255	0~255
	Counter (present value) (CA)	5	10~255	0~255
	Integer (N) (N)	7	10~255	0~255

*1 File numbers 10 to 255 are available in the user setting.

*2 For each element, the bit position can be specified in the range from 0 to F (15).

b) MicroLogix 1000/1200/1500 Series

- i) GT Designer 2 (Version 1.02C or later),
GT Designer (Version 5.05F or later) and DU/WIN (Version 2.50 or later)

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Bit (B)	B3:0/0~B255:255/15	B3:0/0~B255:255/15	Hexadecimal
	Timer (T) (timing bit)	T3:0/TT~T255:255/TT	T3:0/TT~T255:255/TT	Decimal
	Timer (T) (completion bit)	T3:0/DN~T255:255/DN	T3:0/DN~T255:255/DN	
	Counter (C) (up counter)	C3:0/CU~C255:255/CU	C3:0/CU~C255:255/CU	
	Counter (C) (down counter)	C3:0/CD~C255:255/CD	C3:0/CD~C255:255/CD	
	Counter (C) (completion bit)	C3:0/DN~C255:255/DN	C3:0/DN~C255:255/DN	
	GOT internal bit register (GB) *2	GB132~GB1023	GB132~GB1023	
Word device	Timer (T) *1 (set value)	T3:0.PRE~T255:255.PRE	T3:0.PRE~T255:255.PRE	Decimal
	Timer (T) *1 (current value)	T3:0.ACC~T255:255.ACC	T3:0.ACC~T255:255.ACC	
	Counter (T) *1 (set value)	C3:0.PRE~C255:255.PRE	C3:0.PRE~C255:255.PRE	
	Counter (T) *1 (current value)	C3:0.ACC~C255:255.ACC	C3:0.ACC~C255:255.ACC	
	Integer (N)	N3:0~N255:255	N3:0~N255:255	
	GOT internal data register (GD) *2	GD100~GD1023	GD100~GD1023	

*1 32 bits cannot be specified.

*2 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

File number and element specification range

Specify the file number and an element in decimal numbers. However, specify the bit position of a bit (B) in a hexadecimal number.

Device name (symbol)		File number *1	Available element specification range
Bit device	Bit (B)	3~255	0~255 *2
	Timer (timing bit) (T)	3~255	0~255
	Timer (completion bit) (T)	3~255	0~255
	Counter (up counter) (C)	3~255	0~255
	Counter (down counter) (C)	3~255	0~255
	Counter (completion bit) (C)	3~255	0~255
Word device	Timer (set value) (T)	3~255	0~255
	Timer (current value) (T)	3~255	0~255
	Counter (set value) (C)	3~255	0~255
	Counter (current value) (C)	3~255	0~255
	Integer (N) (N)	3~255	0~255

*1 File numbers 3 to 255 are available in the user setting.

*2 For each element, the bit position can be specified in the range from 0 to 15.

7) S7-200/300 Series manufactured by Siemens

a) S7-200 Series

Device name		Setting range		Device number representation
		GT Designer (2)	FX-PCS-DU/WIN	
Bit device	Variable Memory (V)	V00~V51197	V0.0~V5119.7	Decimal
	Input (I)	I00~I77	I0.0~I7.7	
	Output (Q)	Q00~Q77	Q0.0~Q7.7	
	Bit memory (M)	M00~M317	M0.0~M31.7	
	Special Memory (SM)	SM00~SM1947	SM0.0~SM194.7	
	Timer (T) *1	T0~T255	T0~T255	
	Counter (C) *1	C0~C255	C0~C255	
	Sequence Control Relay (S)	S00~S317	S0.0~S31.7	
	GOT internal bit register (GB)	GB132~GB1023	GB132~GB1023	
Word device	Variable Memory (V) *6	VW0~VW5118	VW0~VW5118	
	Input (I) *6	IW0~IW6	IW0~IW6	
	Output (Q) *6	QW0~QW6	QW0~QW6	
	Analog Input (AI) *2*6	AIW0~AIW30	AIW0~AIW30	
	Analog Output (AQ) *6	AQW0~AQW30	AQW0~AQW30	
	Bit memory (M) *6	MW0~MW30	MW0~MW30	
	Special Memory (SM) *3*6	SMW0~SMW192	SMW0~SMW192	
	Timer (T) (16bit) *4	T0~T255	T0~T255	
	Counter (C) (16bit) *4	C0~C255	C0~C255	
	High Speed Counter (HC) (32bit) *5	HC0~HC2	HC0~HC2	
	Sequence Control Relay (S) *6	SW0~SW30	SW0~SW30	
	GOT internal data register (GD)	GD100~GD1023	GD100~GD1023	

*1 Bit devices T and C cannot be written.

*2 Word devices HC and AI cannot be written.

*3 Word device SM cannot be monitored.

*4 Word devices T and C are the 16-bit type.

*5 Word device HC is the 32-bit type.

*6 Only even byte addresses are available.

Note on number representation

A decimal point exists when using the GT Designer (2) but not when using the DU/WIN.

Bit device	Device name V,I,Q,M,SM,T,C,S	Byte address	Bit address 0 to 7
Word device	Device name VW,IW,QW,AI,AQ,M,SM,T,C,HC,S	Device number	

b) S7-300 Series

Device name		Setting range		Device number representation
		GT Designer (2)	DU/WIN	
Bit device	Input relay (I)	I0~I5117	I0.0~I511.7	Decimal
	Output relay (Q)	Q0~Q5117	Q0.0~Q511.7	
	Bit memory (M)	M0~M20477	M0.0~M2047.7	
	GOT internal bit register (GB) *1	GB132~GB1023	GB132~GB1023	
Word device	Present value of timer (T)	T0~T511	T0~T511	
	Present value of counter (C)	C0~C511	C0~C511	
	Data register (D)	D000100000~D102365534	DB□.DBW0~DB□.DBW65534	
	GOT internal data register (GD) *1	GD100~GD1023	GD100~GD1023	

"□" indicates a number in the range from 1 to 1023.

Only even values are available as byte addresses of data register (DBW values).

*1 GB132 to GB255 and GD100 to GD127 in the F920GOT-K

Note on number representation

A decimal point exists when using the GT Designer (2) but not when using the DU/WIN.

Bit device	Device name I,Q,M	Byte address 0 to 511,2047	Bit address 0 to 7
Word device	Device name T,C	Device number 000 to 511	
	Device name DB	Block number 1 to 1023	Byte address DBW0 to DBW65534

3.4 Hardware Specifications

This section explains the hardware specifications of the GOT-F900 Series.

1) General specifications

"o" of the GOT model name indicates 0 or 3.

Item	F940WGOT		F940GOT		F930GOT-K																					
Product model name	F940WGOT-TWD-E	F940GOT-SWD-E	F940GOT-LWD-E	F930GOT-BBD-K-E																						
Supply voltage	24V DC+10%-15% (service power supply of PLC or separately prepared DC power supply)																									
24V DC current consumption (backlight OFF)	650mA/24V DC ^{*1} (400mA/24V DC)	410mA/24V DC	390mA/24V DC	220mA/24V DC (120mA/24V DC)																						
Fuse	Built-in (irreplaceable)																									
Allowable momentary power failure time	Operation continues against power failure of 5ms or less.																									
Built-in lithium battery	PM-20BL (life: Approx. 5 years)	PM-20BL (life: Approx. 5 years)		FX2NC-32BL (life: Approx. 3 years)																						
Ambient temperature	0~50×C ^{*2}	0~50×C ^{*3}		0~50×C																						
Ambient humidity	35 to 85%RH (no condensation)																									
Working atmosphere	Free from corrosive gas and much dusts																									
Vibration resistance	<table><tr><td rowspan="4">In conformance to JIS B3502 and IEC 61131-2</td><td></td><td>Frequency</td><td>Acceleration</td><td>Amplitude</td><td rowspan="4">10 times in each of X, Y and Z directions (for 80 min)</td></tr><tr><td rowspan="2">With intermittent vibration</td><td>10~57Hz</td><td>—</td><td>0.075mm</td></tr><tr><td>57~150Hz</td><td>9.8m/s²</td><td>—</td></tr><tr><td rowspan="2">With continuous vibration</td><td>10~57Hz</td><td>—</td><td>0.035mm</td></tr><tr><td>57~150Hz</td><td>4.9m/s²</td><td>—</td></tr></table>					In conformance to JIS B3502 and IEC 61131-2		Frequency	Acceleration	Amplitude	10 times in each of X, Y and Z directions (for 80 min)	With intermittent vibration	10~57Hz	—	0.075mm	57~150Hz	9.8m/s ²	—	With continuous vibration	10~57Hz	—	0.035mm	57~150Hz	4.9m/s ²	—	
In conformance to JIS B3502 and IEC 61131-2		Frequency	Acceleration	Amplitude	10 times in each of X, Y and Z directions (for 80 min)																					
	With intermittent vibration	10~57Hz	—	0.075mm																						
		57~150Hz	9.8m/s ²	—																						
	With continuous vibration	10~57Hz	—	0.035mm																						
57~150Hz		4.9m/s ²	—																							
Impact resistance	In conformance to JIS B3502 and IEC 61131-2 (147 m/s ² , 3 times in each of X, Y and Z directions)																									
Noise resistance	By noise simulator of 1,000 Vp-p in noise voltage, 1 μs in noise width and 30 to 100 Hz in frequency																									
Withstand voltage	500V AC for 1 min (between all power terminals and ground terminal)																									
Insulation resistance	5 MΩ or more by 500V DC megger (between all power terminals and ground terminal)																									
Grounding	Grounding resistance 100Ω or less																									
Protective structure	Equivalent to IP65f ^{*6*7}	Equivalent to IP65f ^{*6*7}		Equivalent to IP65f ^{*6*7}																						
Display element Life	Approx. 50,000 hours or more (working temperature: 25°C) Guarantee period is 1 year.																									
Backlight Life ^{*4}	50,000 hours or more	40,000 hours or more		50,000 hours or more																						
	Cold cathode fluorescent tube backlight (working temperature: 25°C) Guarantee period is 1 year.																									

	F930GOT	F920GOT-K		Handy GOT																					
	F930GOT-BWD-E	F920GOT-BBD-K-E	F920GOT-BBD5-K-E	F940GOT-SBD-(R)H-E	F940GOT-LBD-(R)H-E																				
			5V DC Supplied from PLC	24V DC+10%-15% (separately prepared DC power supply)																					
	200mA/24V DC	80mA/24V DC (70mA/24V DC)	220mA/5V DC (180mA/5V DC)	300mA/24V DC (200mA/24V DC)																					
	Built-in (irreplaceable)		—	Built-in (irreplaceable)																					
	Operation continues against power failure of 5ms or less.		—	Operation continues against power failure of 5ms or less.																					
	FX2NC-32BL (life: Approx. 3 years)	—		FX2NC-32BL (life: Approx. 3 years)																					
	0~50°C	0~50°C		0~40°C																					
	35 to 85%RH (no condensation)																								
	Free from corrosive gas and much dusts																								
	<table><tr><td rowspan="4">In conformance to JIS B3502 and IEC 61131-2</td><td></td><td>Frequency</td><td>Acceleration</td><td>Amplitude</td><td rowspan="4">10 times in each of X, Y and Z directions (for 80 min)</td></tr><tr><td rowspan="2">With intermittent vibration</td><td>10~57Hz</td><td>—</td><td>0.075mm</td></tr><tr><td>57~150Hz</td><td>9.8m/s²</td><td>—</td></tr><tr><td rowspan="2">With continuous vibration</td><td>10~57Hz</td><td>—</td><td>0.035mm</td></tr><tr><td>57~150Hz</td><td>4.9m/s²</td><td>—</td></tr></table>					In conformance to JIS B3502 and IEC 61131-2		Frequency	Acceleration	Amplitude	10 times in each of X, Y and Z directions (for 80 min)	With intermittent vibration	10~57Hz	—	0.075mm	57~150Hz	9.8m/s ²	—	With continuous vibration	10~57Hz	—	0.035mm	57~150Hz	4.9m/s ²	—
In conformance to JIS B3502 and IEC 61131-2		Frequency	Acceleration	Amplitude	10 times in each of X, Y and Z directions (for 80 min)																				
	With intermittent vibration	10~57Hz	—	0.075mm																					
		57~150Hz	9.8m/s ²	—																					
	With continuous vibration	10~57Hz	—	0.035mm																					
57~150Hz		4.9m/s ²	—																						
	In conformance to JIS B3502 and IEC 61131-2 (147 m/s2, 3 times in each of X, Y and Z directions)																								
	By noise simulator of 1,000 Vp-p in noise voltage, 1 μs in noise width and 30 to 100 Hz in frequency																								
←		500V AC for 1 min *5		500V AC for 1 min (between all power terminals and ground terminal)																					
←		5 MΩ or more by 500V DC megger *5		5 MΩ or more by 500V DC megger (between all power terminals and ground terminal)																					
←		Grounding resistance 100Ω or less	—	Grounding resistance 100Ω or less																					
	Equivalent to IP65f*6*7	Equivalent to IP65f *6*7		Equivalent to IP54 *6																					
	Approx. 50,000 hours or more (working temperature: 25°C) Guarantee period is 1 year.																								
	50,000 hours or more	—		40,000 hours or more																					
		LED (Red/White)		Cold cathode tube (working temperature: 25°C) Guarantee period is 1 year.																					

*1 When the power is turned on, the current consumption of 750 mA/24V DC maximum is applied.

*2 0 to 50×C when the screen is installed laterally. 0 to 40×C when the screen is installed longitudinally or horizontally.

*3 0 to 40×C when the extension interface is used.

*4 The life of the backlight above indicates the value at 25×C.

*5 Between all power terminals of the PLC and ground terminal.

*6 The relevancy is confirmed in the test for IP65f or IP54. However, this test result does not provide any guarantees that the product stands against use in all sorts of environment.

*7 As regarding the front panel

1) Switch/lamp/buzzer specifications

"o" of the GOT model name indicates 0 or 3.

Item		F940WGOT	F940GOT	F930GOT-K	
Product model name		F940WGOT-SWD-E	F940GOT-SWD-E F940GOT-LWD-E	F930GOT-BBD-K-E	
Switch/ key	Operation switch	—	—	—	
	Function key	—	—	8 switches	
	Grip switch	—	—	—	
	Emergency stop switch	—	—	—	
	Keylock switch	—	—	—	
	Ten-key keypad	—	—	0~9, (-), (.)	
	Cursor key	—	—	ENT,ESC,SET,DEV, ▼,◀,▶,▲	
Lamp	Power indicator LED	—	1 LED (green)	—	
	Operation indicator LED	—	—	—	
	Function key LED	—	—	8 switches(green)	
	Grip switch indicator LED	—	—	—	
Buzzer ^{*1}	Buzzer	—	—	—	
	Built-in buzzer	Provided	Provided	Provided	

^{*1} The buzzer sounds as its power input from the outside of the GOT. When a touch key on the screen is pressed, the built-in buzzer sounds. (The in-built buzzer of F920GOT-K sounds only when the key-pad is operated.)

2) External interface specifications

"o" of the GOT model name indicates 0 or 3.

Item		F940WGOT	F940GOT	F930GOT(-K)	
Product model name		F940WGOT-SWD-E	F940GOT-SWD-E F940GOT-LWD-E	F930GOT-BWD-E F930GOT-BBD-K-E	
Serial interface	RS-232C	9-pin D-Sub, male port, 2 channels #4-40UNC Inch screw thread	9-pin D-Sub, male port #4-40UNC Inch screw thread	9-pin D-Sub, male port #4-40UNC Inch screw thread	
	RS-422	9-pin D-Sub, female port M2.6 Metric screw thread	9-pin D-Sub, female port M2.6 Metric screw thread	9-pin D-Sub, female port M2.6 Metric screw thread	
External I/O connection	For operation switch	—	—	—	
	For emergency stop switch	—	—	—	

	F930GOT	F920GOT-K	Handy GOT			
	F930GOT-BWD-E	F920GOT-BBD-K-E F920GOT-BBD5-K-E	F94□GOT-SBD-H-E F94□GOT-LBD-H-E		F94□GOT-SBD-RH-E F94□GOT-LBD-RH-E	
	—	—	4 switches (4 contacts/ common)	a contact 10 mV/24V DC Life: 1,000,000 times	4 switches (4 contacts/ common)	a contact 10 mV/24V DC Life: 1,000,000 times
	—	6 switches	—	—	—	—
	—	—	1 switch (assigned as key in display unit)	—	1 switch (JSHD4H2 manufactured in Sweden) 3-positioned OFF/ ON/OFF (individual wiring)	2a contact 1A/24V DC (resistance load)
	—	—	1 switch (AH165-VR01 manufactured by Fuji Electric) (individual wiring)	b contact 1A/24V DC (resistance load) Life: 100,000 times or more	1 switch (AH165-VR02 manufactured by Fuji Electric) (individual wiring)	2b contact 1A/24V DC (resistance load) Life: 100,000 times or more
	—	—	—	—	1 switch (with 2 keys) (AS6M-2KT1PB manufactured by IDEC Corporation) (individual wiring)	c contact 1A/24V DC (resistance load) Life: 100,000 times or more
	—	0~9, (-), (.)	—	—	—	—
	—	ENT,ESC,SET,DEV, ▼,◀,▶,▲	—	—	—	—
	—	—	1 LED (green)	—	1 LED (green)	—
	—	—	4 LED (green)	—	4 LED (green)	—
	—	—	—	—	—	—
	—	—	1 LED (green)	—	1 LED (green)	—
	—	—	—	—	—	—
	Provided	Provided	Provided	—	Provided	—

	F920GOT-K	Handy GOT			
	F920GOT-BBD-K-E F920GOT-BBD5-K-E	F94□GOT-SBD-H-E F94□GOT-LBD-H-E		F94□GOT-SBD-RH-E F94□GOT-LBD-RH-E	
	9-pin D-Sub, male port #4-40UNC Inch screw thread	9-pin D-Sub, male connector Screen data transfer Dedicated to personal computer port		9-pin D-Sub, male connector Screen data transfer Dedicated to personal computer port	
	9-pin D-Sub, female port M2.6 Metric screw thread	Dedicated port F940GOT-*BD-H:RS-422 F943GOT-*BD-H:RS-232C		Dedicated port F940GOT-*BD-RH:RS-422 F943GOT-*BD-RH:RS-232C	
	—	4 switches (4 contacts/common)	External cable (with 25-pin D-Sub connector or untied)	4 switches (4 contacts/common)	External cable (with 37-pin D-Sub connector)
	—	1 switch(a contact)		1 switch(a contact)	

MEMO

4. Installation and Wiring of F920GOT-K/F930GOT(-K)/F940(W)GOT



Cautions on installation

- Use the F920GOT-K/F930GOT(-K)/F940(W)GOT in the environment for the general specifications described in this manual.
Never use the F920GOT-K/F930GOT(-K)/F940(W)GOT in a place with dusts, soot, conductive dusts, corrosive gas or flammable gas, place exposed to high temperature, condensation or wind and rain, or place subject to vibrations and impacts.
If the F920GOT-K/F930GOT(-K)/F940(W)GOT is used in an unfavorable place described above, electrical shock, fire or malfunction, damages or deterioration of the F930GOT/F940(W)GOT may be caused.
- Never drop cutting chips and electric wire chips into the ventilation window of the F920GOT-K/F930GOT(-K)/F940(W)GOT when you drill screw holes or perform the wiring work.
Otherwise, fire, failure or malfunction may be caused.
- Connect connection cables securely to the specified connectors while the power is turned OFF.
Imperfect connection may cause malfunction or failure.



Caution on wiring

- Make sure to shut down all phases of the power supply outside the F920GOT-K/F930GOT(-K)/F940(W)GOT before starting the installation or wiring work.
Otherwise, electrical shock and damages of the F930GOT/F940(W)GOT may be caused.



Caution

- The F920GOT-K/F930GOT(-K)/F940(W)GOT has the DC power specifications. Connect the DC power cable to dedicated terminals as described in this manual.
If the AC power supply is connected to power terminals, the F930GOT/F940(W)GOT may be burnt.
- Mount and connect a fuse of 2 A to the 24V DC power supply. Connect the + and - sides of the DC power supply correctly as described in this manual.
If the power supply is connected reversely, failure may be caused.
- Perform Class D grounding to the ground terminal (⏏) of the F930GOT/F930GOT-K/F940(W)GOT using a wire of 1.25 mm² or more.
When supplying the power from the PLC (excluding the F940WGOT), connect the F930GOT/F930GOT-K/F940(W)GOT to the ground terminal of the PLC. When supplying the power from the outside, connect the F930GOT/F940(W)GOT to the ground terminal of the external power supply.
However, never perform common grounding with the strong electrical system.



Caution on design

- While executing monitoring in the GOT (GOT-F900), if a communication error (including disconnection of a cable) occurs, communication between the GOT and the PLC CPU is interrupted and the GOT is disabled.
When establishing the system configuration using the GOT, make sure that a switch which gives a significant operation to the system is executed from any equipment other than the GOT while postulating communication error in the GOT. Otherwise, accidents may be caused by incorrect output and malfunction.



Caution

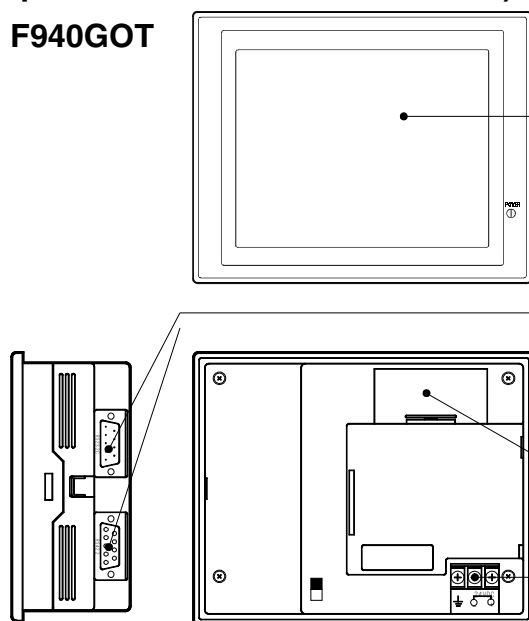
- Do not bind the control cable and the communication cable together with the main circuit and the power line. Keep such cables off the main circuit and the power line by 100 mm or more.
Otherwise, malfunction may be caused by noise.
- Make sure to press touch keys on the display screen with hand. If touch keys are subject to an excessive force or pressed by a hard or sharp object, they may fail.

Note

- Even if momentary power failure of less than 5 ms occurs in the power supply, the F930GOT/F930GOT-K/F940(W)GOT continues the operation.
If long-time power failure or voltage drop occurs, the F930GOT/F940(W)GOT stops the operation.
When the power supply is recovered, the F930GOT/F940(W)GOT restarts the operation.
- Use electric wires of 0.75 mm² or more in wiring of the power supply so that voltage drop does not occur. Use solderless terminals for M3, and tighten them securely with the tightening torque of 0.5 to 0.8 N•m so that troubles are not caused.

Index of each part**(examples: F940GOT and F930GOT-K)**

For the F920GOT-K, F930GOT(-K) and F940WGOT, refer to corresponding sections and paragraphs shown below.

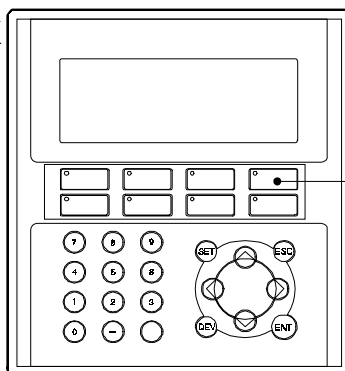
F940GOT

Controlling the ON/OFF status of the backlight
⇒ 23.3

Connecting the PLC
⇒ Section 8 and later
(described for each connected PLC)
- When connecting the FX Series PLC...Section 8
- When connecting the A Series PLC...Section 9
Connecting the PC (for screen data transfer)
⇒ 6.2.1
Connecting the PC
(for sequence program transfer and monitoring)
⇒ 6.2.2
Function to connect two or more GOT units
⇒ Section 7

Detecting voltage drop of the battery
⇒ 23.4

Wiring the power supply
⇒ 4.7

F930GOT-K

Assigning functions to the function keys
Preparing the key name sheet
⇒ 4.8

This section explains installation on the panel face and wiring of the power supply, etc.

Wiring and setting procedures

This section introduces the procedure to connect the GOT-F900 to connected equipment such as PLC.

1. Preparation

Item name	Description	Reference
Outline of Connection	You can learn the outline of the connection method.	4.1
Name of each Part	You can learn the name of each part of the F930GOT/F940(W)GOT.	4.2
Processing of Panel Face	You can learn the dimension of the processing on the panel face.	4.3
Installation	You can learn the method to install the F920GOT-K/F930GOT/F930GOT-K/F940(W)GOT.	4.4
Connector Pin Layout and Signal Name	You can check the connector signal names.	4.5

2. Wiring

Item name	Description	Reference
Outline of Internal Wiring	You can check block diagrams of portions requiring wiring and the internal wiring.	4.6
Wiring for 24V DC and 5V DC Power Supply and Class D Grounding	You can check the methods to wire the 24 VDC power supply and perform Class D grounding.	4.7
Handling of function keys	You can learn how to use the function keys. (Setting in the screen creation software is required.)	4.8

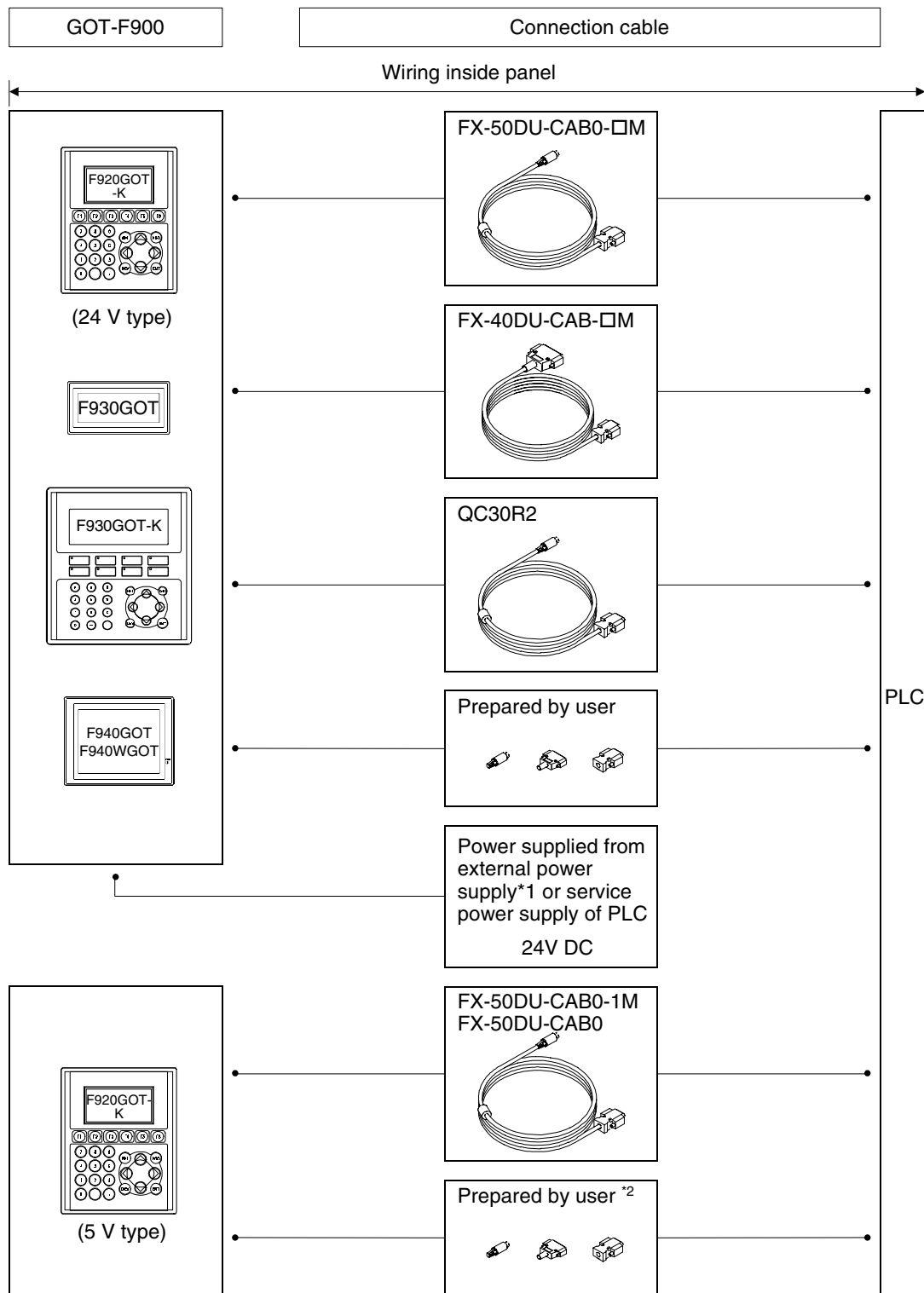
3. Setting

Item name	Description	Reference
Setting of Connected Equipment for GOT	You can learn the method to make the functions and LEDs of the function keys available using the screen creation software.	4.9

4.1 Outline of Connection

This section explains the outline of the cables connecting the GOT-F900 to the PLC.

Panel installation



*1 Because the F940WGOT consumes much current, it cannot be connected to the service power supply of the PLC. Prepare an external power supply.

*2 The cable to connect the 5V type F920GOT-K to the FX, FX2C, A, QnA and Q Series PLC needs to be prepared by the user. The 5V DC power is supplied from the PLC.

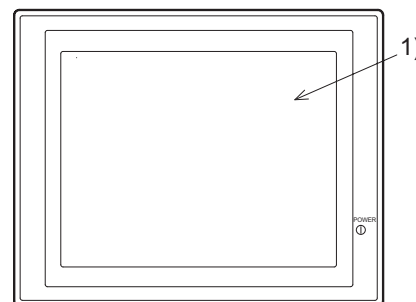
4.2 Name of Each Part

4.2.1 Front Panel

1) Display

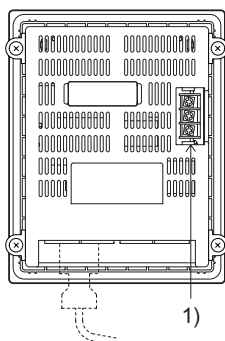
- F920GOT-K
Graphic display of 128 × 64 dots
Character string: 16 characters × 4 lines
 - F930GOT/F930GOT-K
Graphic display of 240 × 80 dots
Character string: 30 characters × 5 lines
 - F940GOT
Graphic display of 320 × 240 dots
Character string: 40 characters × 15 lines
 - F940WGOT
Graphic display of 480 × 234 dots Character string: 60 characters × 14 lines
- Alphabets and numbers can be displayed in the size of $\times 1/2$ to $\times 4$ in height and $\times 1$ to $\times 4$ in width.

Example: Front panel of F940GOT

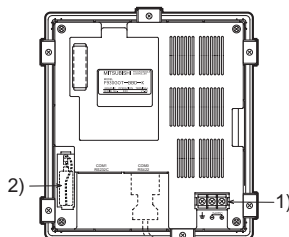


4.2.2 Rear Panel

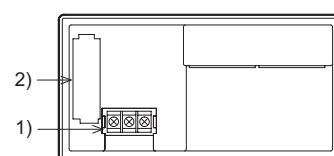
F920GOT-K



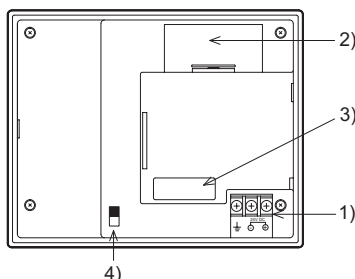
F930GOT-K



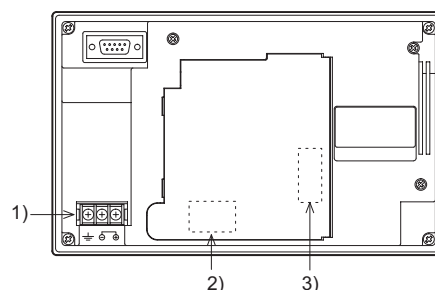
F930GOT



F940GOT



F940WGOT



1) Power terminals:

Supply the power to the GOT-F900 and perform the grounding. (Excluding the 5 V type F920GOT-K.)

2) Battery:

Stores the sampling data, the alarm history and the current time.

The screen data is stored in the built-in flash memory, and kept stored even if the life of the battery is expired.

	F930GOT, F930GOT-K	F940GOT, F940WGOT
Battery model name	FX2NC-32BL	PM-20BL

3) Extension interface:

Connects an optional extension equipment.

This interface is used to connect the screen data transfer adapter F9GT-40UMB and write the screen data stored in the EPROM at high speed. (F940GOT)

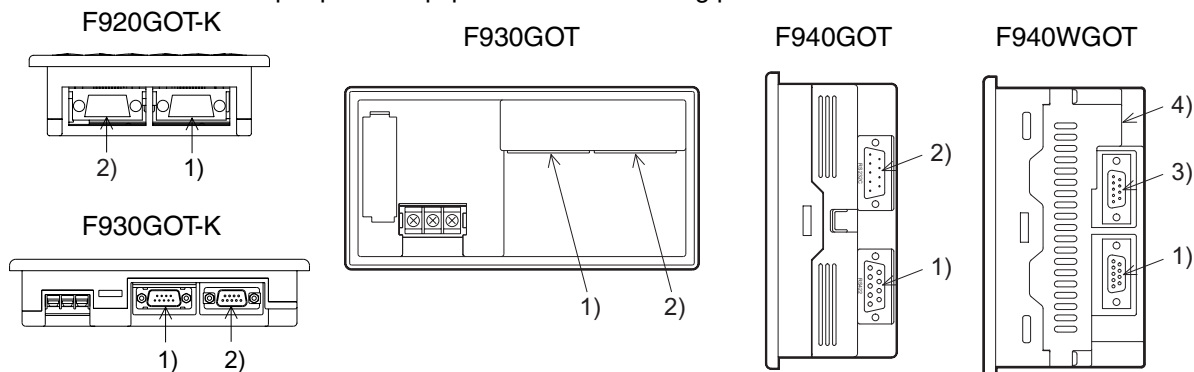
This interface is used to connect the screen data transfer adapter F9GT-40FMB and transfer the screen data stored in the FLASH memory at high speed. (F940GOT, F940WGOT)

4) CN/OP selector switch:

Not used (Set it to "OP" usually.)

4.2.3 Function of Ports

Connect a PLC unit and peripheral equipment to the following ports of the GOT.



1) PLC port (RS-422) 9-pin D-Sub, female

- Connect here a PLC through RS-422.
- Use this port also to connect two or more GOT units (through RS-422). (excluding the F920GOT-K)

2) Personal computer/PLC port (RS-232C) 9-pin D-Sub, male

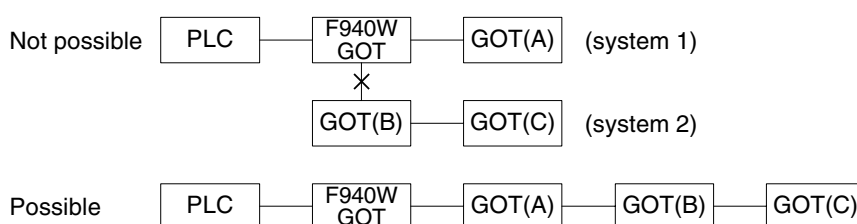
- Connect here a personal computer to transfer the screen data created by the screen creation software.
- Use this port also to connect a PLC or microcomputer board through RS-232C. (In the F920GOT-K, only Q Series PLC can be connected.)
- Use this port also to connect two or more GOT units (through RS-232C), a bar code reader or a printer. (excluding the F920GOT-K)
- The two-port interface function is available. (A personal computer which has started up the PLC software can be connected here.)

3) PLC port (RS-232C) 9-pin D-Sub, male

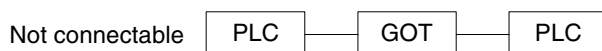
- Connect here a PLC or micro computer board through RS-232C.
- When using the F940WGOT, use this port also to connect two or more GOT units (through RS-232C), a bar code reader or a printer.

4) Personal computer port (RS-232C) 9-pin D-Sub, male

- Connect here a personal computer to transfer the screen data created by the screen creation software.
 - This port is not available to connect a PLC.
 - Use this port to connect a printer or bar code reader.
 - Another GOT can be connected here only when the PLC is connected to 3) RS-232C port.
 - The two-port interface function is available. (A personal computer which has started up the PLC software can be connected here.)
- When connecting a PLC through a computer link unit, use the port 1), 2) or 3).
In the F940WGOT, when connecting a personal computer and transferring the screen data, use the port 4).
 - F940WGOT has two serial ports besides one port for PLC. In connecting two or more GOT units, however, only one of the ports can be used to configure a system. The other port can be used for a printer or a personal computer.



- Only one PLC can be connected to one GOT.



4.3 Outside Dimensions and Panel Face Processing

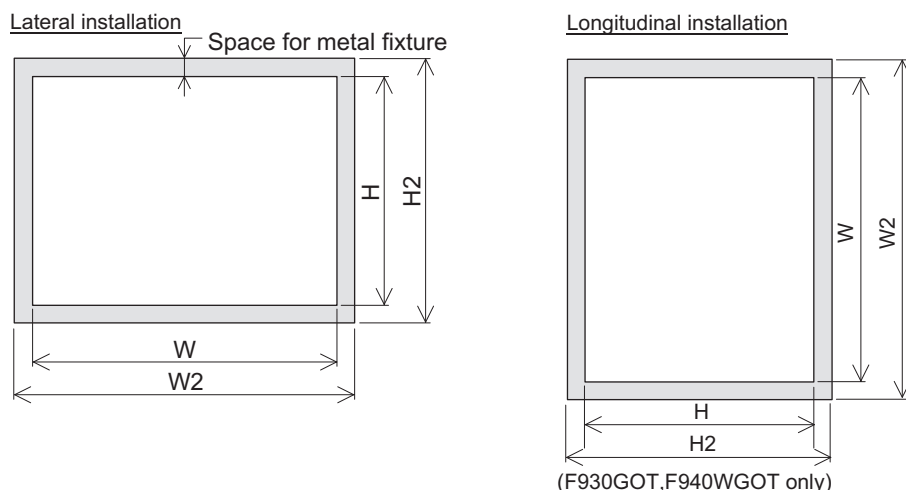
This paragraph explains the specifications of outside dimensions of the GOT-F900, and the panel cut dimensions in processing the panel face.

4.3.1 Panel Cut Dimension

On the panel face, drill an installation hole of the dimension shown below.

In addition to the panel cut dimension, the space for metal fixture is required by approximately 10 mm in the left, right, up and down directions respectively.

For the details, refer to "2) Installation space" below.



1) Panel cut dimension

Unit: mm (inches)

	F920GOT-K	F930GOT	F930GOT-K	F940GOT	F940WGOT
W	92 (3' 63")	137 (5' 39")	155 (6' 10")	153 (6' 02")	206 (8' 11")
H	119 (4' 69")	66 (2' 60")	170 (6' 69")	121 (4' 76")	124 (4' 88")

- Make sure that the processing accuracy is 0 to +1 mm.
- Make sure that the thickness of the installation panel is 5 mm or less.

2) Installation space (Reference)

For the details, refer to the next page.

Unit: mm (inches)

	F920GOT-K	F930GOT	F930GOT-K	F940GOT	F940WGOT
W2	109 (4' 29")	137 (5' 35")	174 (6' 85")	172 (6' 77")	225 (8' 86")
H2	119 (4' 69")	85 (3' 35")	189 (7' 44")	140 (5' 51")	143 (5' 63")

- The dimension above is offered for reference.

4.4 Installation

This section explains the caution on installation of the GOT-F900 on the panel face as well as the installation procedure.

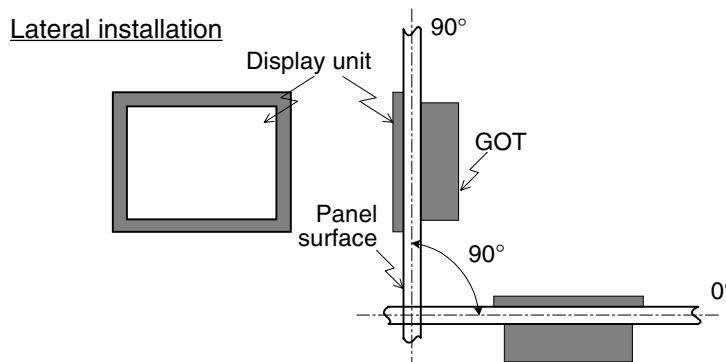
4.4.1 Caution on installation

When installing the GOT on the control panel, etc., make sure that the display unit is set at an angle shown in the figure below.

If the GOT is installed at any other angle, the GOT may be deteriorated earlier.

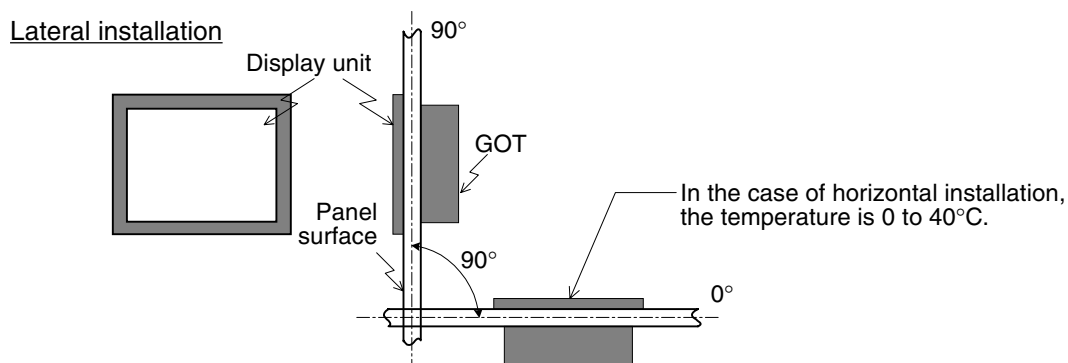
1) F920GOT-K, F930GOT, F930GOT-K and F940GOT

When installing the GOT inside the panel while placing the screen laterally, set the installation angle to 0 to 90° while the temperature inside the panel during operation is 0 to 50°C.

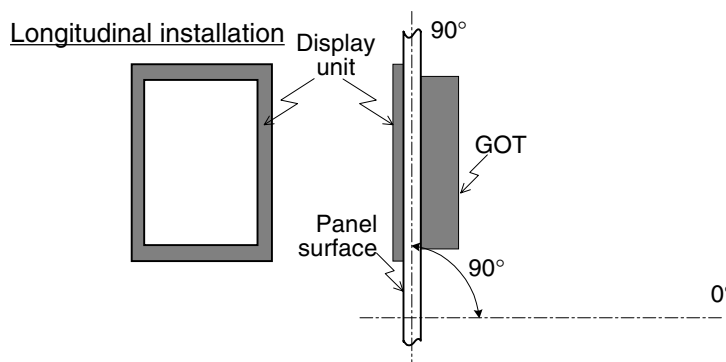


2) F940WGOT

When installing the GOT on the panel surface while placing the screen laterally, set the installation angle to 90° while the temperature inside the panel during operation is 0 to 50°C. When the required installation angle is other than 90°, then the temperature should be 0 to 40°C.



When installing the GOT on the panel surface while placing the screen longitudinally, set the installation angle to 90° while the temperature inside the panel during operation is 0 to 40°C.



4.4.2 Inner dimension of the panel required for installation

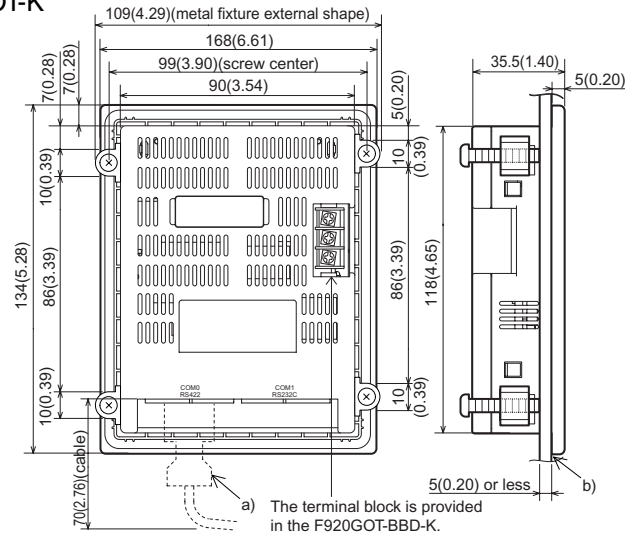
When installing the GOT, take into consideration the inner dimension shown below.

a) PLC cable

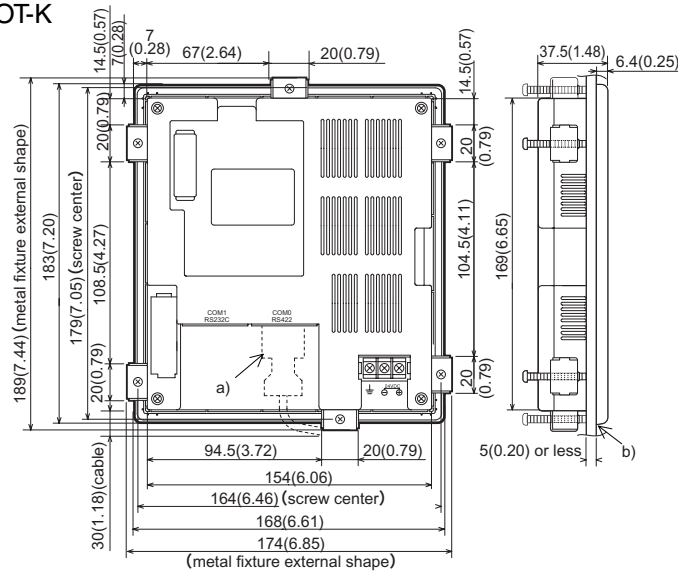
b) Packing

F920GOT-K

Dimensions: mm (inches)

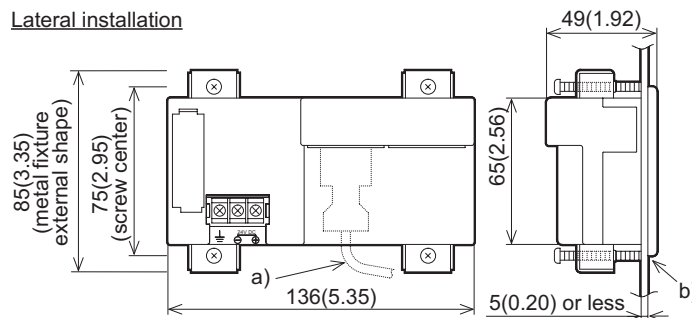


F930GOT-K

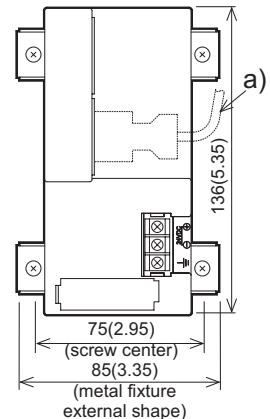


F930GOT

Lateral installation

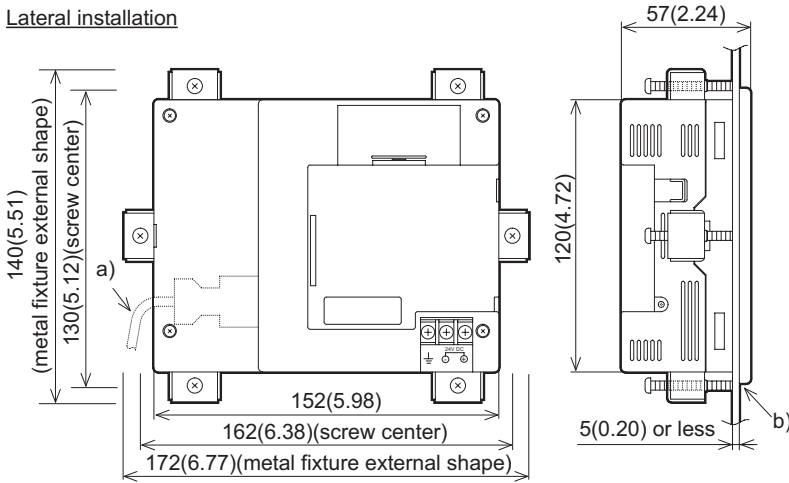


Longitudinal installation

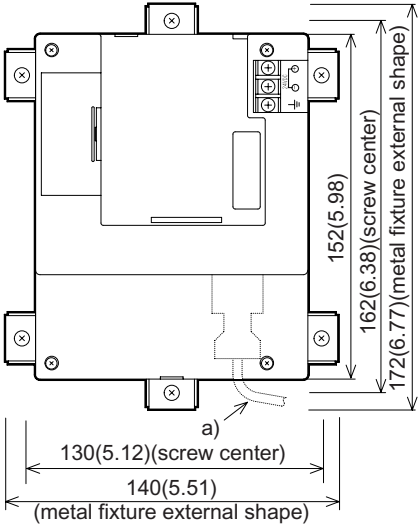


F940GOT

Lateral installation



Longitudinal installation



Dimensions: mm (inches)

1

Introduction

2

Outline

3

Specifications

4

Installation and Wiring of F940GOT

5

Installation and Wiring of Handy GOT

6

Connection of Peripheral Equipment

7

Connection of Two or More GOT Units

8

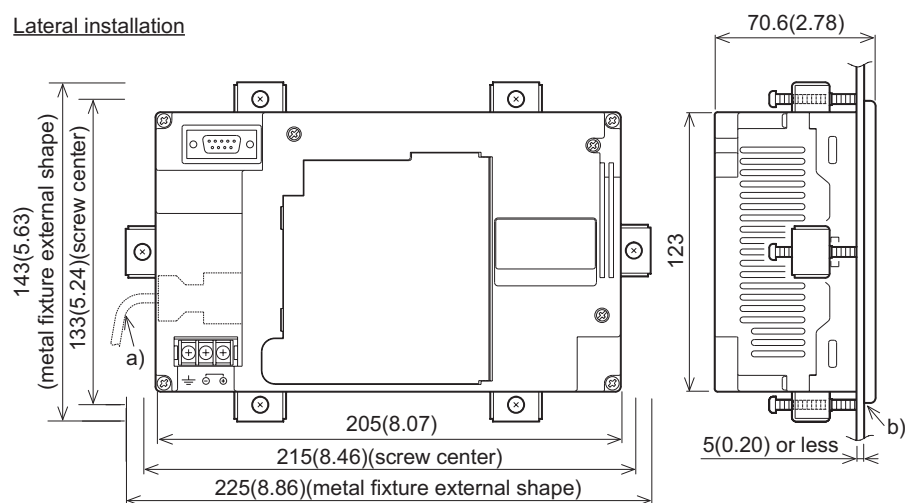
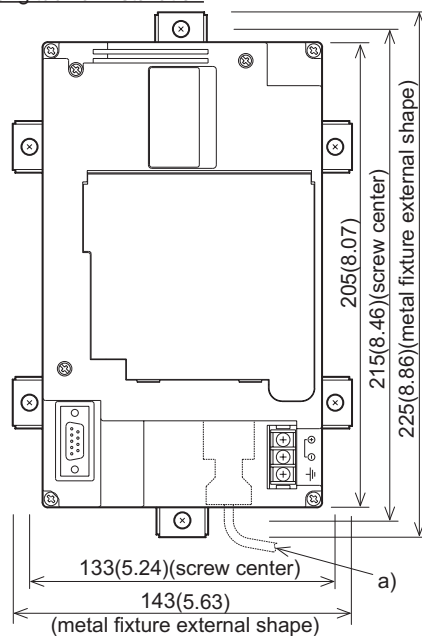
Connection of MELSEC-F FX Series PLC

9

Connection of MELSEC-A Series PLC

10

Connection of MELSEC-QnA Series PLC

F940WGOTLateral installationLongitudinal installation

Dimensions: mm (inches)

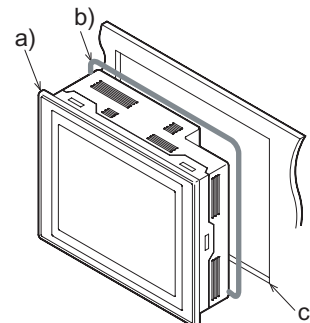
4.4.3 Installation procedure

The GOT-F900 is so designed as to be embedded in the panel. Install the GOT using the procedure shown below. For the panel cut dimension, refer to the previous page.

1) Inserting the GOT into the panel face

Attach a packing to the GOT. Insert the GOT from the front of the panel face.

- a) GOT
- b) Packing
- c) Installation hole



2) Fixing the GOT

Hang the hook of the metal fixture (offered as accessory) to installation hook holes in the GOT. Tighten a tightening bolt (offered as accessory) securely in each position.

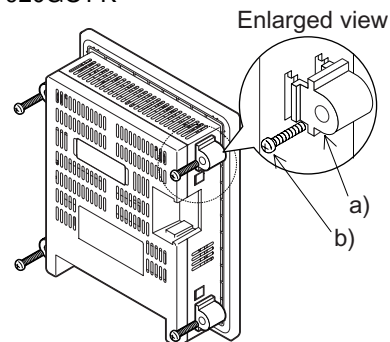
The GOT can be fixed in four positions at corners. However, to prevent dusts and water, fix the GOT in six positions (excluding the F930GOT).

- a) Metal fixture
- b) Tightening bolt

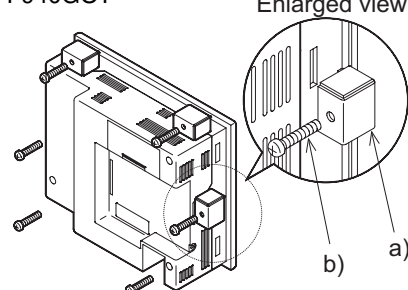
* Make sure that the tightening torque for each tightening bolt is 0.3 to 0.5 N·m.

(0.18 to 0.22 N·m when installing the F920GOT-K)

F920GOT-K



F940GOT



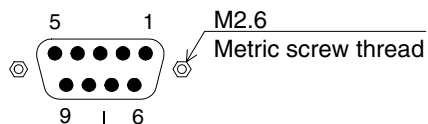
4.5 Connector Pin Layout and Signal Name (Excluding the 5 V type F920GOT-K.)

The figure below shows the pin layout in the serial interface connector built in the GOT-F900.

F920GOT-K (24 V type)/F930GOT/F930GOT-K/F940GOT/F940WGOT

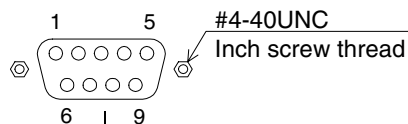
RS-422

9-pin D-Sub, female



RS-232C

9-pin D-Sub, male

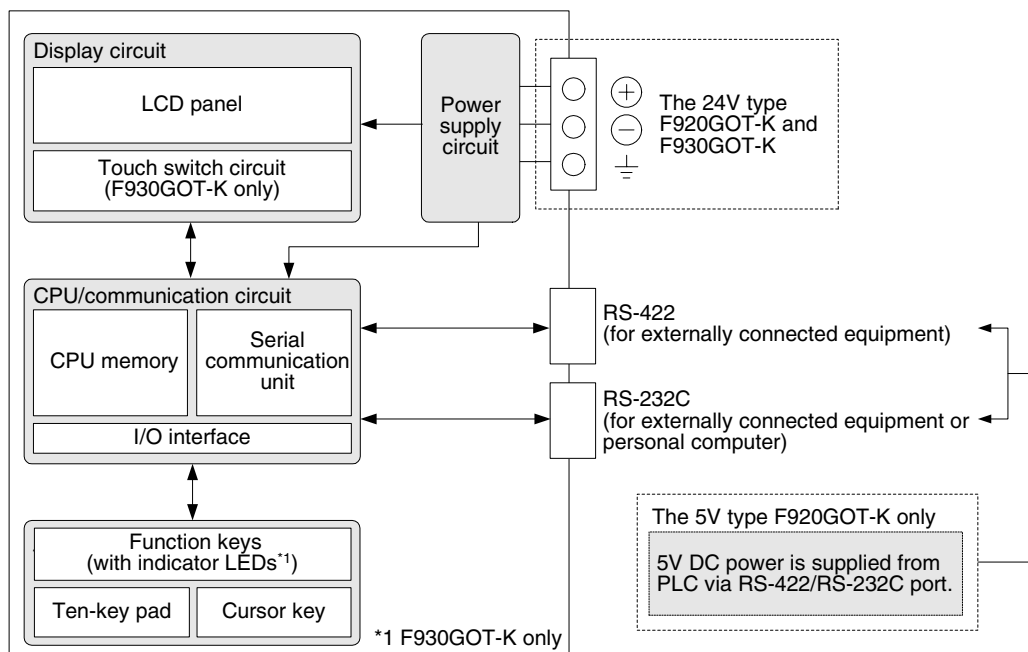


D-sub pin number	RS-422	RS-232C	Application
1	TXD+(SDA)	NC	Signal wire for communication with PLC (For the wiring, refer to the section corresponding to the connected PLC.)
2	RXD+(RDA)	RD(RXD)	
3	RTS+(RSA)	SD(TXD)	
4	CTS+(CSA)	ER(DTR)	
5	SG(GND)	SG(GND)	
6	TXD-(SDB)	DR(DSR)	
7	RXD-(RDB)	RS(RTS)	
8	RTS-(RSB)	CS(CTS)	
9	CTS-(CSB)	User cannot use	

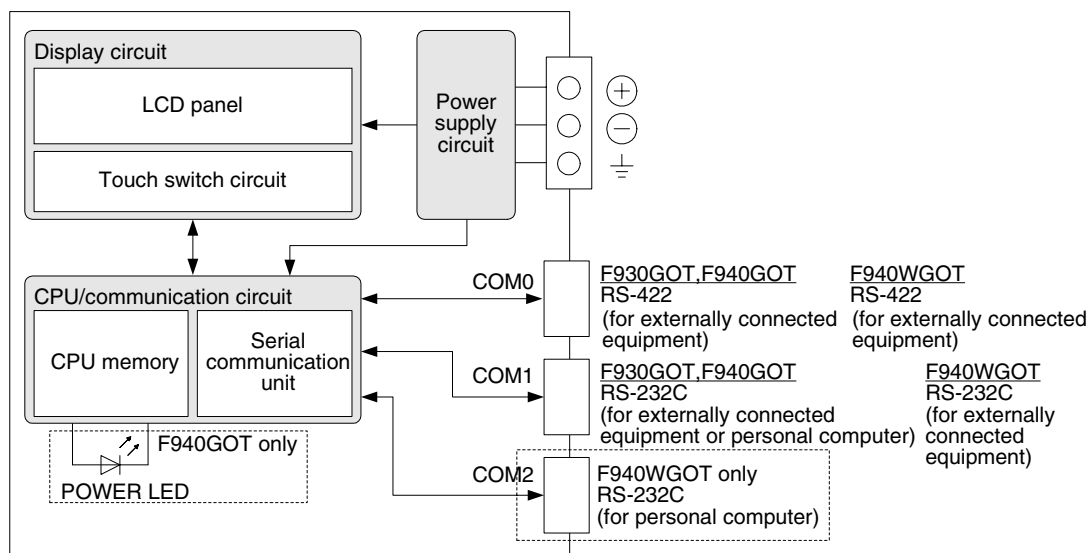
4.6 Outline of Internal Wiring

The figure below shows the internal wiring of the GOT-F900.

F920GOT-K/F930GOT-K



F930GOT/F940GOT/F940WGOT



4.7 Wiring for 24V DC and 5V DC Power Supply and Class D Grounding

To the F930GOT/F940(W)GOT, the power is supplied from the PLC or from the external power supply.

1) Current consumption in the GOT-F900

The table below shows the current consumption in each case.

GOT-F900	Current consumption	Remarks
F920GOT-BBD5-K	220mA/5V DC	Power is supplied from PLC via communication cable.
F920GOT-BBD-K	80mA/24V DC	
F930GOT-BWD-E	200mA/24V DC	
F930GOT-BBD-K	220mA/24V DC	
F940GOT-LWD-E	390mA/24V DC	
F940GOT-SWD-E	410mA/24V DC	
F940WGOT-TWD-E	650mA/24V DC	At power ON, 750 mA/24V DC maximum is applied.

a) In the case of F920GOT-K (5 V type)

5V DC is supplied from the PLC.

The F920GOT-K can be connected to the FX1N-422-BD or FX2N-422-BD extension board mounted on the FX1S/FX1N/FX2N Series PLC.

Before connecting, learn the restrictions described in Chapter 8.

b) In the case of F920GOT-K (24 V type), F930GOT and F940GOT

When supplying the power from the service power supply of the FX Series PLC or extension unit, take into consideration the total current supplied to proximity switches and extension blocks. If the total current exceeds the capacity of the service power supply, supply the power from the external power supply. For the FX0/FX0S/FX1S/FX0N Series PLC, an external power supply is required.

c) In the case of F940WGOT

The current consumption is as shown in the table above. Supply the power from the external power supply.

2) Momentary power failure (excluding only the 5 V type F920GOT-K)

Even if momentary power failure of less than 5ms occurs in the power supply, the GOT-F900 continues the operation.

If long-time power failure or voltage drop occurs, the GOT-F900 stops the operation. When the power supply is recovered, the GOT-F900 automatically displays the title screen and then an user screen.

3) Electric wires to be used (excluding only the 5 V type F920GOT-K)

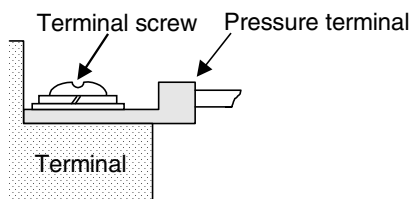
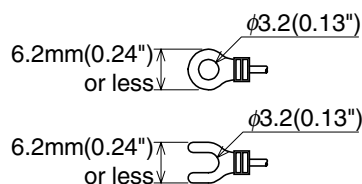
Use electric wires of 0.75mm² or more in the wiring of the power supply so that voltage drop does not occur. Use solderless terminals for M3, and tighten them securely with the tightening torque of 0.5 to 0.8 N•m so that troubles are not caused.

4) Recommended feature size of terminal

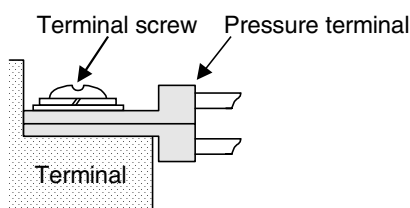
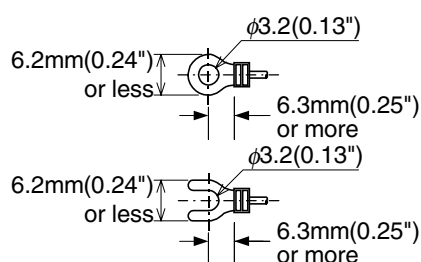
F920GOT-K (5V type)

No terminal block is provided.

F920GOT-K (24V type), F940GOT

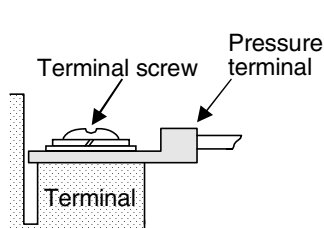
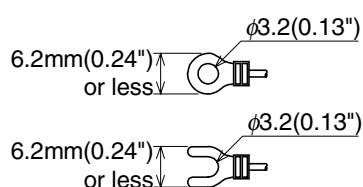


When wiring one cable to a terminal

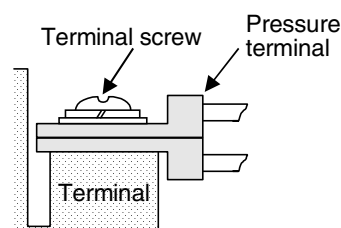


When wiring two cables to a terminal

F930GOT/F930GOT-K/F940WGOT



When wiring one cable to a terminal



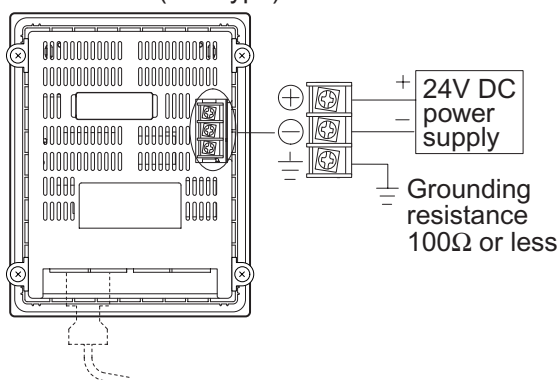
When wiring two cables to a terminal

5) Wiring

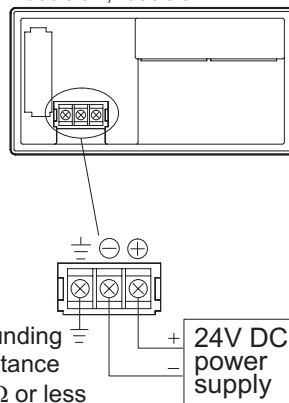
Install wiring from 24V DC power supply and grounding to the terminal block on the rear panel of the GOT-F900.

No wiring is required because power is supplied to the F920GOT-K via a communication cable.

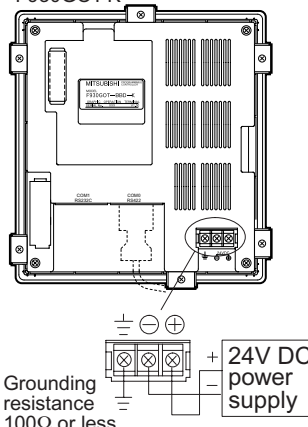
F920GOT-K (24V type)

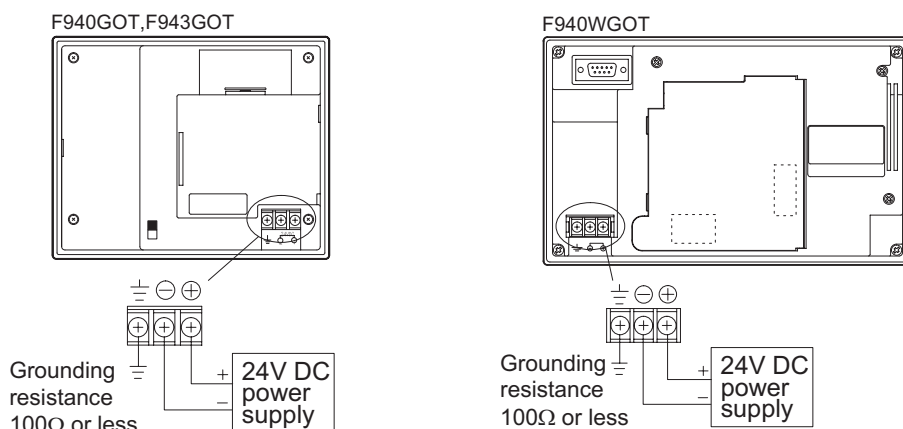


F930GOT, F933GOT



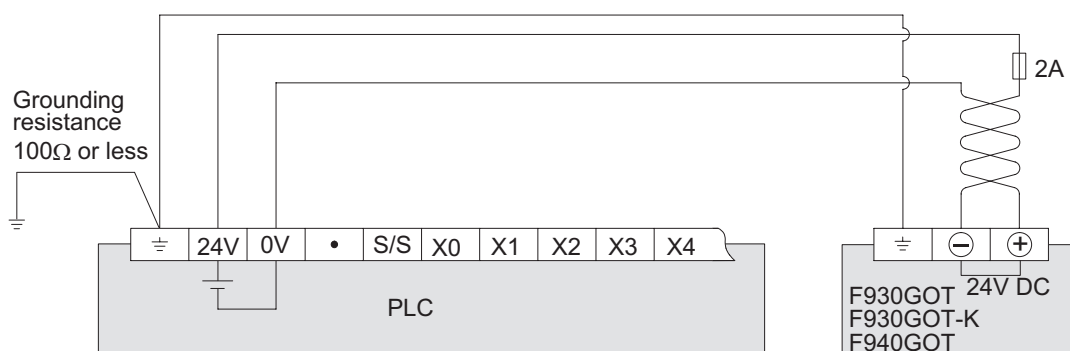
F930GOT-K





a) Example when the power is supplied from the PLC

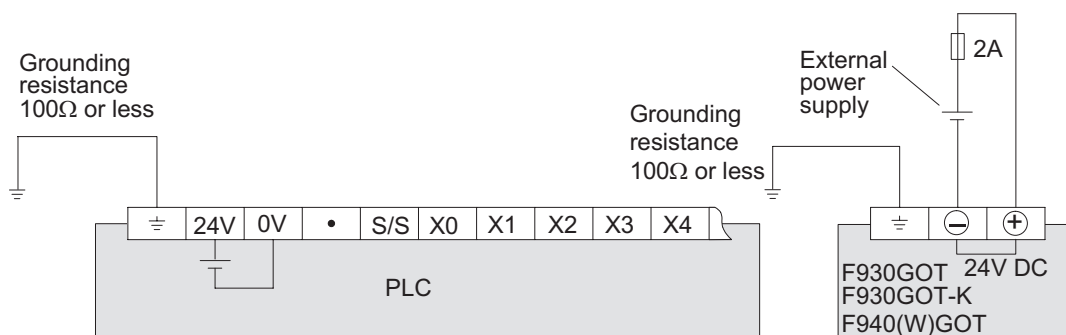
Connect the power terminal of the F920GOT-K (24V type)/F930GOT/F930GOT-K/F940GOT to the 24V DC service power supply of the PLC or extension unit.



b) Example when the power is supplied from the external power supply

Connect the power terminal of the F920GOT-K (24V type)/F930GOT/F930GOT-K/F940(W)GOT to the 24V DC external power supply.

When the input power supply of the external power supply is different perform dedicated grounding (≡) to the PLC and to the F930GOT/F930GOT-K/F940(W)GOT separately.

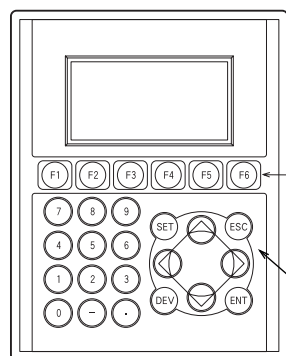


4.8 Handling of Function Keys (F1 to F8) (F920GOT-K and F930GOT-K)

The ON/OFF status of the function keys is transmitted to the PLC via a communication cable.

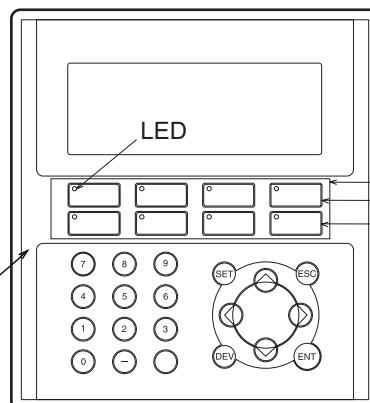
Allocation of keys

F920GOT-K



Function switch

F930GOT-K



LED

Function switch
F1~F4
F5~F8

These keys cannot be used for applications other than a value input and the cursor movement.

Six function keys (F1 to F6) are provided.

Eight function keys with green LEDs (F1 to F8) are provided.

Setting in the screen creation software

Select the followings on the menu in the screen creation software.

		Function of function key	LED indicator on function key
Screen creation software	GT Designer2	Unit of project: "Common"- "Operation Panel" Unit of screen: Right-click the screen No. to be set among base screens displayed in the project workspace, then select "Screen Panel".	"Objects" - "Lamp" - "External Lamp"
	GT Designer	"Common"- "Operation Panel"	"Draw" - "Animation Display" - "Lamp"
	DU/WIN	"View/Project" - "Screen List" - "Keys"	"Objects" - "Indicator" - "Output Indicator"

4.8.1 Use of function keys

This section explains the use of the function keys and the indicator LEDs (only in the F930GOT-K).

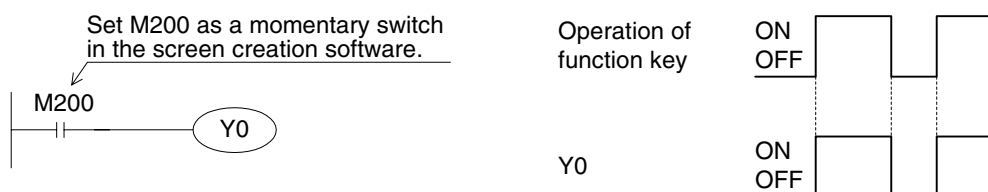
1) Wiring of function keys

No wiring of the function keys is required because the keys and the connected equipment (PLC) communicate via a communication cable.

2) Input of function keys

The operations of the function keys (alternate/momentary, set/reset, screen changeover) can be set in the screen creation software.

The LED is turned ON/OFF by turning ON/OFF the devices allocated to each function switch in reference to Allocation of device to control LED below.



3) Lighting of LEDs on function keys (Available in the F930GOT-K)

No wiring of the LEDs (1 to F8) is required because the LEDs and the connected equipment (PLC) communicate via a communication cable. A green LED is lit when the device allocated to the function key using the screen creation software is turned ON.

a) Allocation of device to control LED

Device	Function key
M100	Function key SW1 Green
M101	Function key SW2 Green
M102	Function key SW3 Green
M103	Function key SW4 Green
M104	Function key SW5 Green
M105	Function key SW6 Green
M106	Function key SW7 Green
M107	Function key SW8 Green

← Set this device using the screen creation software. The LEDs for the function keys can be allocated successively.

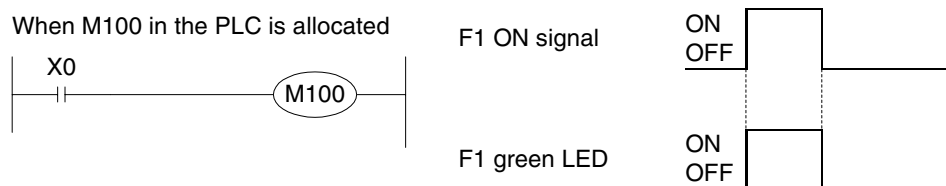
b) Setting in creation software

The devices to display the indicator LEDs on function keys should be set in the screen creation software.

For details, refer to Setting of connected equipment for GOT described later.

c) Program example

The indicator LEDs on the function keys can be controlled by the PLC by turning ON/OFF the devices allocated in the screen creation software.



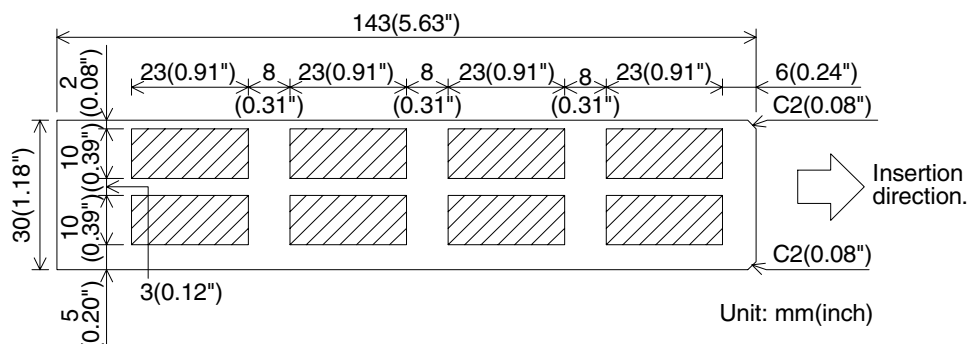
4.8.2 Preparation of Function Key Name Sheet (Available in the F930GOT-K)

This section explains how to prepare the function key name sheet.

1) Preparing the name sheet

- Make the mount sheet in reference to the following dimensions and prepare an OHP sheet (transparent and colorless sheet).
- Write down the names of the switches used on the mount sheet.

Function key



Note: The shaded parts indicate the effective range for characters.

- When the work in b) is completed, copy the contents of the name sheet base on an OHP sheet in the actual dimensions (100%) using a copy machine.
When using a different OHP sheet, use the following type. Make sure that the selected OHP sheet can be used in a copy specification.

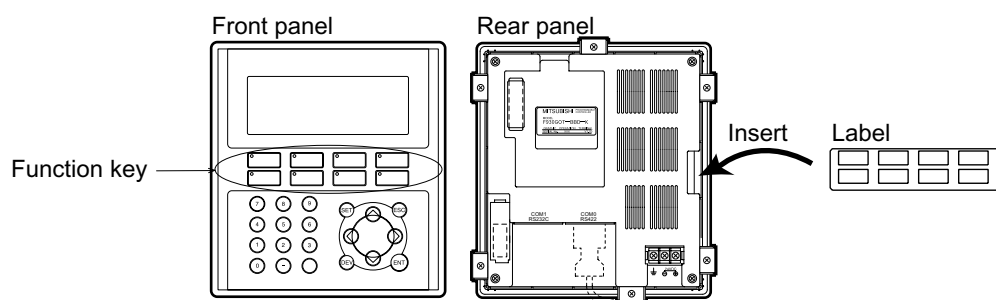
[Recommended OHP sheet]

Material: Polyester film

Thickness: 0.1mm (0.004")

2) Attaching the sheet

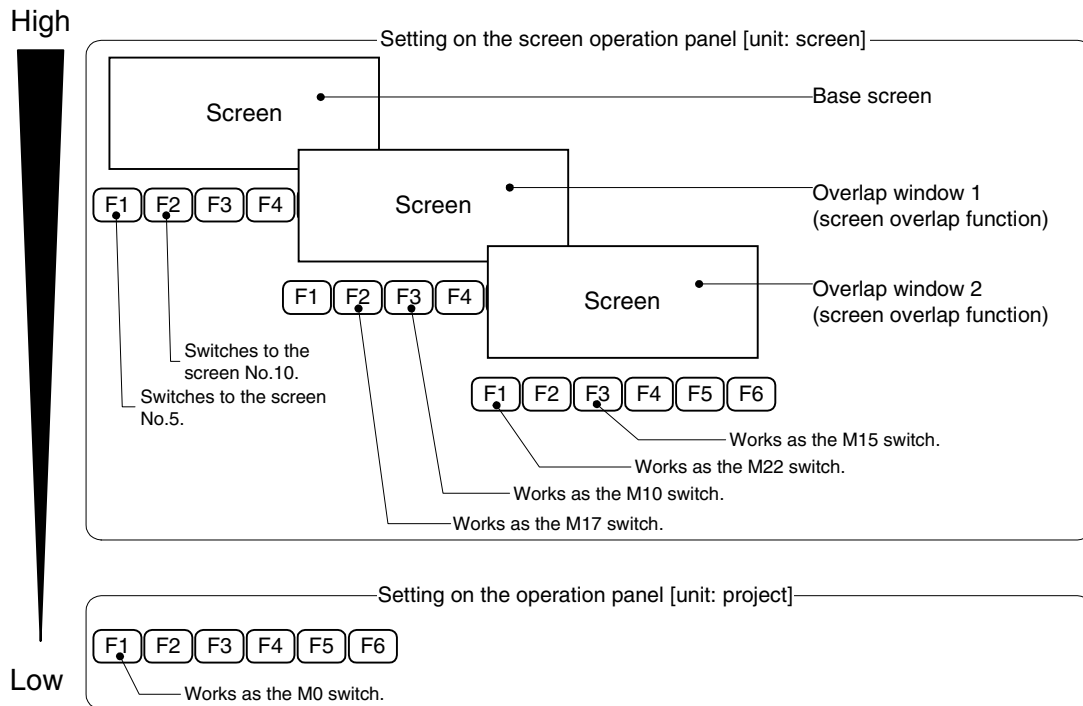
Insert it into the following position shown below of the F930GOT-K.



4.8.3 Cautions on use

With regard to the function keys (Operation Panel), the priority is given to the base screen and overlap windows.

If there are two or more types of setting, only the setting on a screen having higher priority is valid in the unit of function key No.

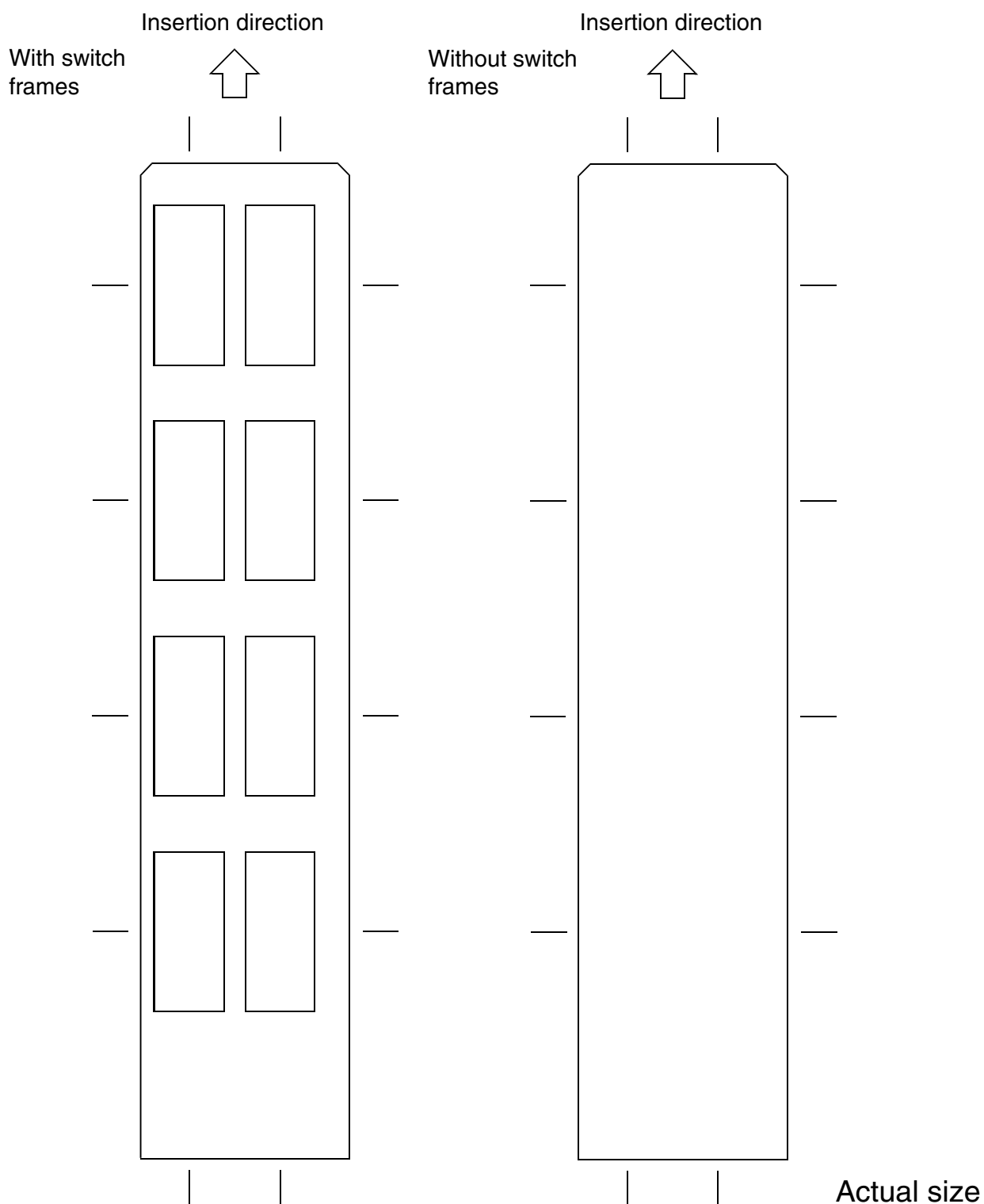


Suppose that the screens shown above are overlapping.

- For the [F1] key, only the setting "Switches to the screen No. 5." set in the unit of screen is valid.
- For the [F2] key, the setting "Switches to the screen No. 10." set on the base screen is valid.
- For the [F3] key, only the setting "Works as the M10 switch." set on the overlap window 1 is valid.

4.8.4 Label pattern (F930GOT-K)

Copy this pattern to the OHP sheet offered as an accessory.



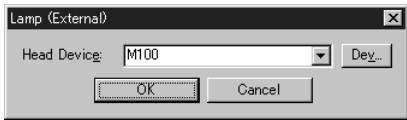
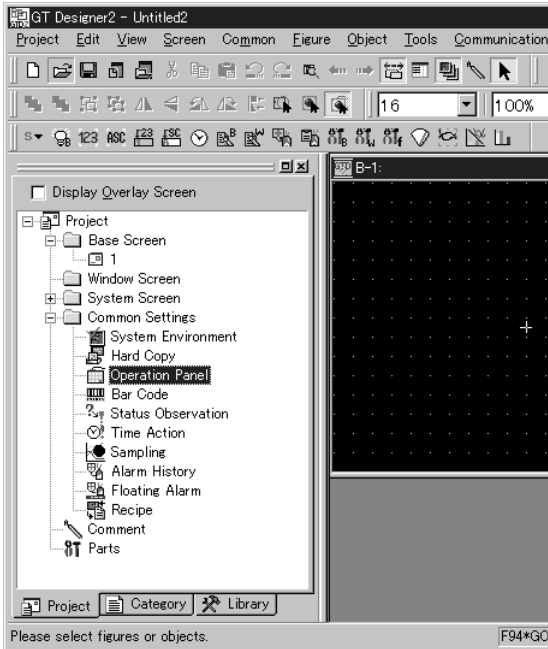
4.9 Setting of Connected Equipment for GOT

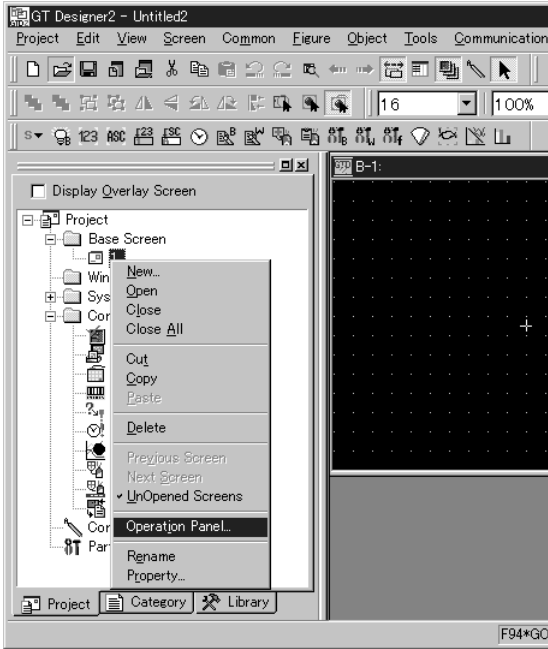
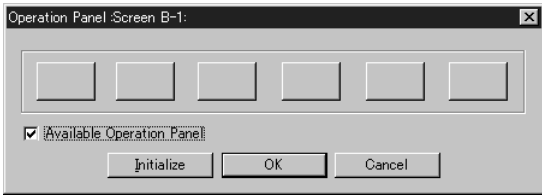
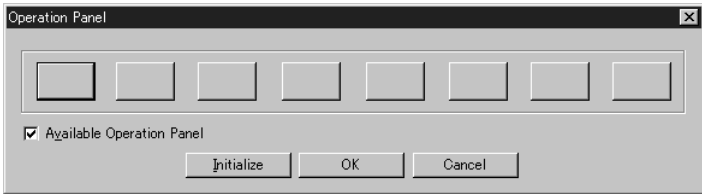
The setting in the screen creation software is required to turn on and off the function keys and LED display using the connected equipment. This section describes the setting method.

1) GOT-F900 Series

No setting is enabled on the GOT. Set items in either one of the screen creation software mentioned below.

2) GT Designer2

Operation		Display (screen name)
[Setting] [LED setting] Only in F930GOT-K [Switch setting] Function key	a) It is supposed that the GT Designer2 has started up and the screen data to be set is read. b) Open a user screen to be set. Any screen is available as far as it has been already created. Select and display the base screen (B-1) in this example.	The "Lamp" dialog box appears. "Operation Panel" dialog box appears.
	c) Select "Object"-"Lamp"-"External" on the menu. 	
	d) Click the [Dev..] button, input a bit device to be assigned, then click [OK]. Refer to Caution on setting of "Lamp (External)" described later. e) To a function key, a same function can be set in the entire project, or a different function can be set for each screen. The required procedure is as described below. <u>Unit of project (common on all screens)</u> From the menu bar, select "Common"-"Operation Panel". Or double-click "Operation Panel" in the tree displayed in the project work space.	
		

	Operation	Display (screen name)
	Unit of screen (individual) Select "Project"->"Base Screen" from the project work space, left-click the screen No. to be set, then select "Operation Panel" on the submenu.  In the case of F920GOT-K  In the case of F930GOT-K  f) Click "Available Operation Panel" to display the check mark (✓). g)Click a box indicating a function key, and set its function. Refer to "Function key setting" described later.	

Caution on setting of "Lamp (External)"

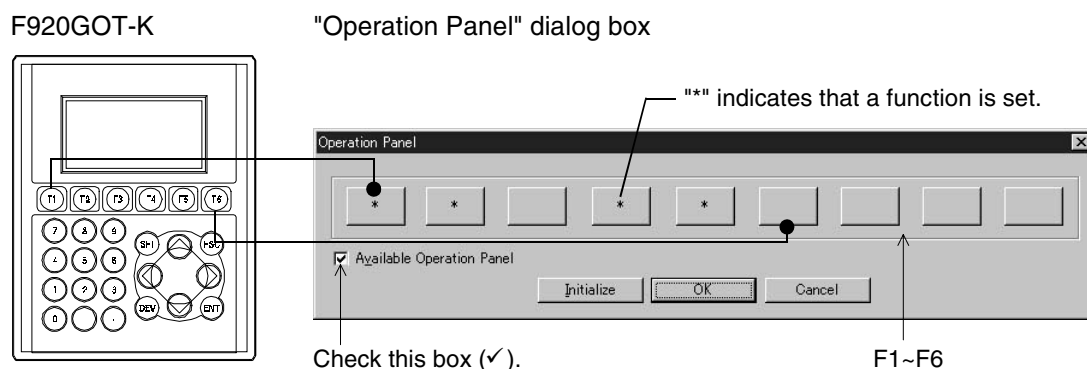
1. The contents of "Lamp (External)" you have set are not displayed on the screen.
2. The setting of "Lamp (External)" is valid only in the F920GOT-K, F930GOT-K and Handy GOT. Never set it in any other series.
3. Set only one lamp for all screens of the created screen data.
4. Make sure that the bit device assigned on the "Basic" tab in "Lamp" dialog box is not included in the read/write device range set in "Common"- "System Information".

Function key setting

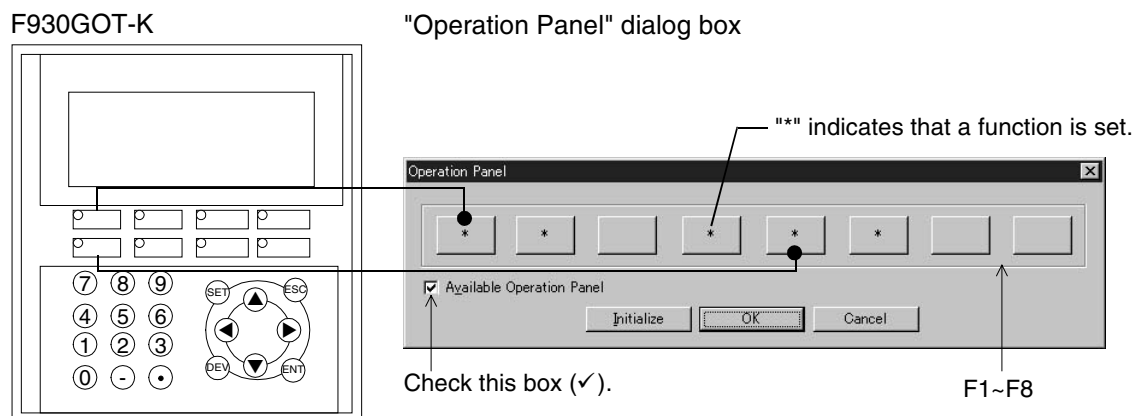
1. "Available Operation Panel" check box is valid only in the F920GOT-K, F930GOT-K and Handy GOT. Do not set it in any other series.
2. Several boxes displayed on the "Operation Panel" dialog box (shown in the table below) correspond to the function keys. Note that key codes cannot be set to the function keys though the contents of operation setting are equivalent to those for touch switches.

Setting up the function keys (for the F920GOT-K)

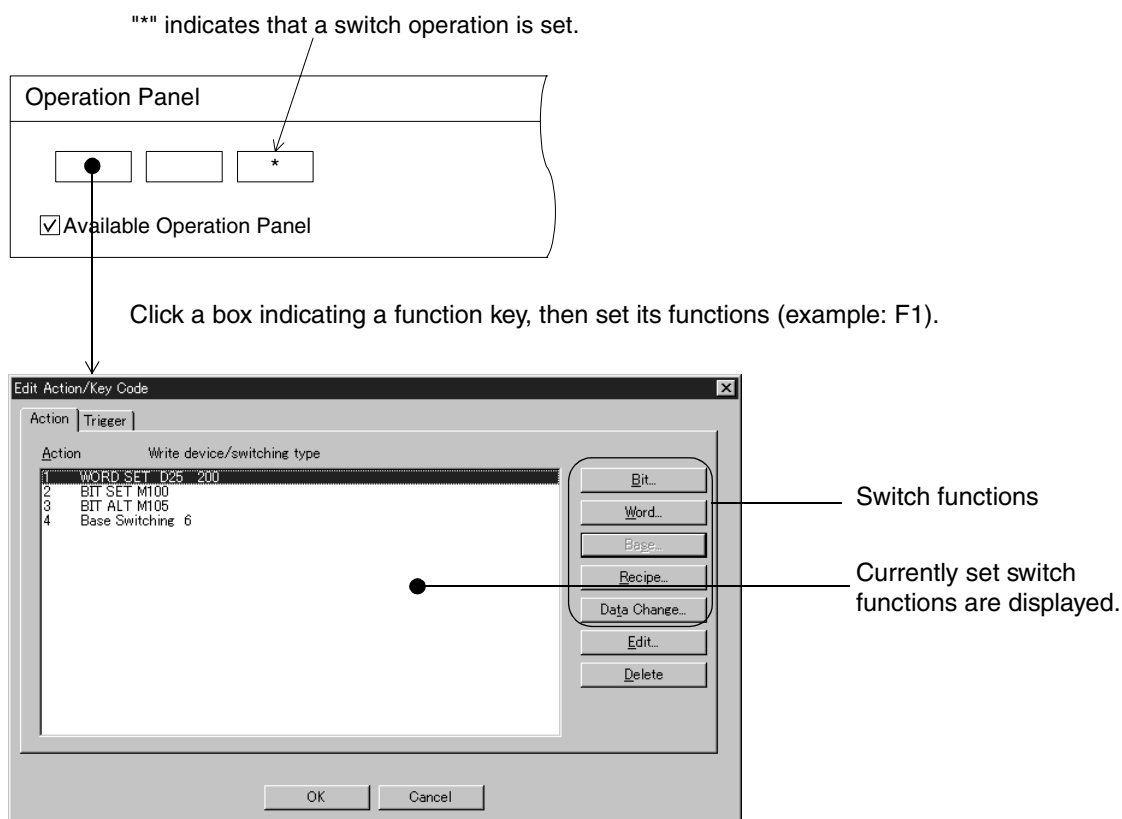
The function keys in the F920GOT-K are assigned as shown below.

**Setting up the function keys (for the F930GOT-K)**

The function switches in the F930GOT-K are assigned as shown below.



Screen display of GT Designer2



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Introduction

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Outline

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Specifications

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Installation
and Wiring of
F940GOT

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Installation
and Wiring of
Handy GOT

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Connection of
Peripheral
Equipment

7

Connection of
Two or More
GOT Units

8

Connection of
MELSEC-F FX
Series PLC

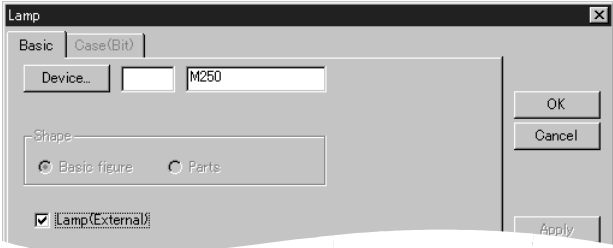
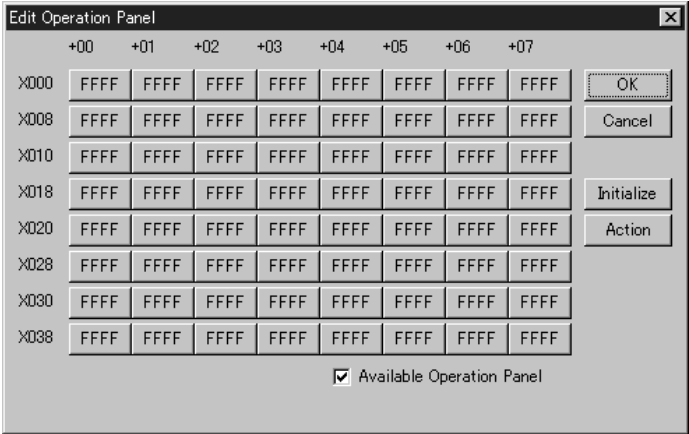
9

Connection of
MELSEC-A
Series PLC

10

Connection of
MELSEC-QnA
Series PLC

3) GT Designer

	Operation	Display (screen name)
[Setting]	a) It is supposed that the GT Designer has started up and the screen data to be set is read.	
	b) Open a user screen to be set. Any screen is available as far as it has been already created. Select and display the base screen (B-1) in this example.	
[LED setting]	c) Select "Draw"-"Animation Display"-"Lamp" on the menu.	The "Lamp" dialog box appears.
		
	d) On the "Basic" tab, click "Lamp (External)" to display the check mark (✓), click the [Device] button, input a bit device to be assigned, then click [OK]. Refer to Caution on setting of "Lamp (External)" described later.	
[Switch setting] Function key	e) On the menu, select "Common"-"Operation Panel".	"Edit Operation Panel" dialog box appears.
		
	f) Click "Available Operation Panel" to display the check mark (✓). Refer to "Function key setting" described later.	

Caution on setting of "Lamp (External)"

1. The contents of "Lamp (External)" you have set are not displayed on the screen.
2. The setting of the "Lamp (External)" check box is valid only in the F920GOT-K, F930GOT-K and Handy GOT. Never set it in any other series.
3. Set only one lamp for all screens of the created screen data.

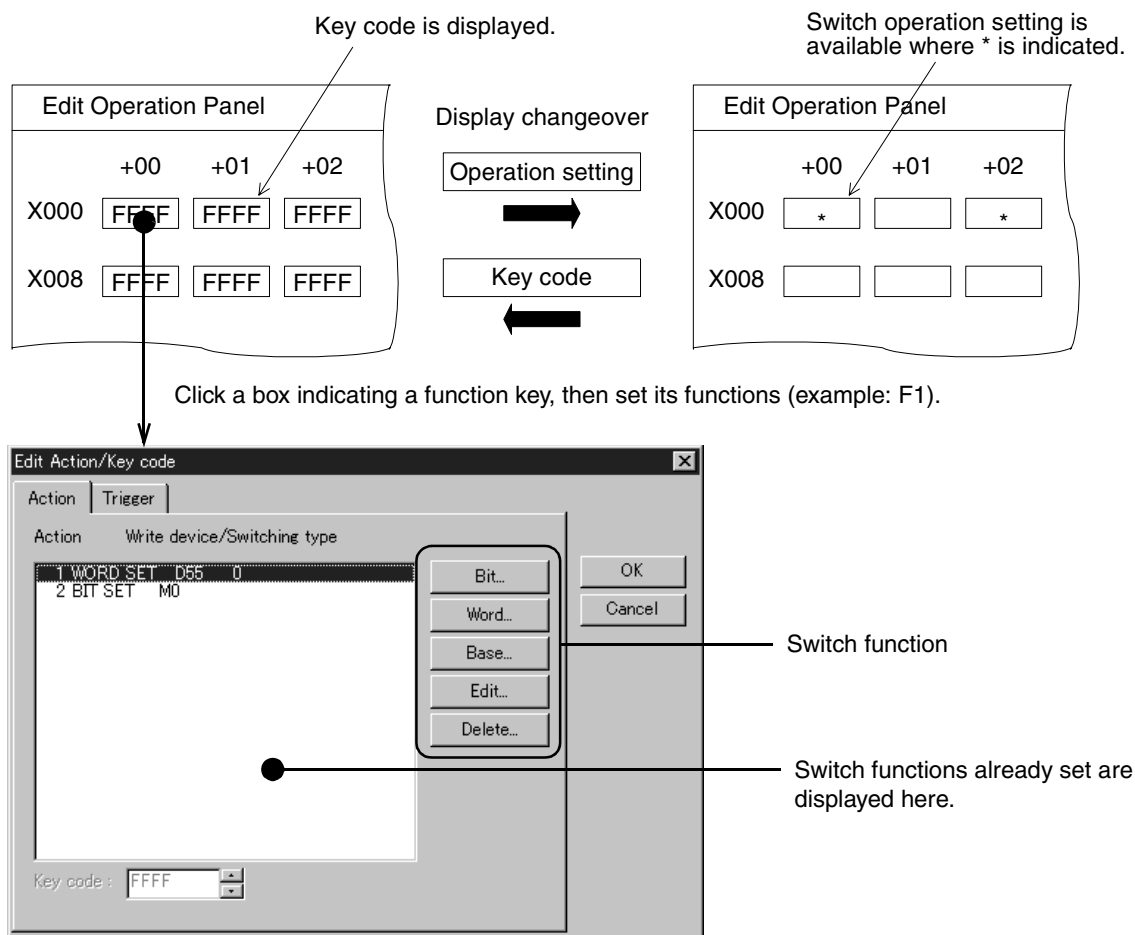
Function key setting procedure and cautions

1. The check box of "Available Operation Panel" is valid only in the F920GOT-K, F930GOT-K and Handy GOT. Do not set it in any other series.
2. The operations of the keys (F1 and others) can be set using devices (+00 ~ of X000) in "Edit Operation Panel" in the screen creation software.
Note that key codes cannot be set to the function keys though the contents of operation setting are equivalent to those for touch switches.
Note also that device names of X000 do not indicate device names of the connected equipment (PLC).

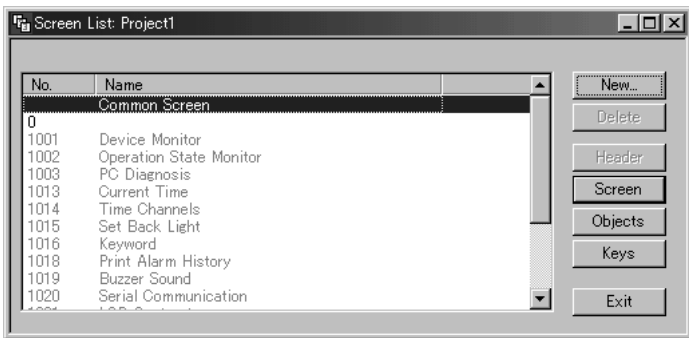
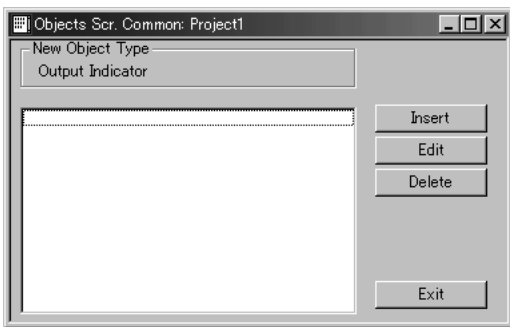
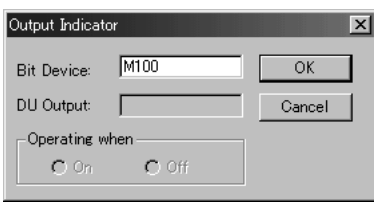
Allocation table of function key

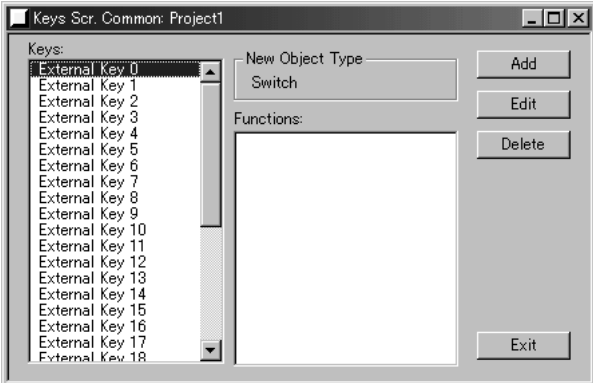
		+00	+01	+02	+03	+04	+05	+06	+07
F920GOT-K	X000	F1	F2	F3	F4	F5	F6	—	—
F930GOT-K	X000	F1	F2	F3	F4	F5	F6	F7	F8

Screen display of GT Designer



4) DU/WIN

	Operation	Display (screen name)
[Setting]	a) It is supposed that the DU/WIN has started and the screen data to be set has been read. b) Select "Common Screen" on the "Screen List" window (highlighted when clicked).  If the window is closed, select "View/Project"->"Screen List" on the menu.	
[LED setting]	The LEDs for the function switches are set on "Common Screen". c) Click the [Objects] button. d) Select "Object"->"Indicator"->"Output Indicator" on the menu.  e) Click the [Insert] button.  Input a bit device to be assigned, and click [OK]. Refer to Caution on setting of "Output Indicator" next page. Close all windows except the "Screen List" window.	The "Objects Scr. Common" window appears. "Output Indicator" is displayed in the "New Object Type" field on the "Objects Scr. Common" window. The "Output Indicator" dialog box appears.
[Switch setting]	f) Select "Common Screen" or "User Screen" on the "Screen List" window (by clicking it to be highlighted). To enable the switch function for all the screens, select "Common Screen". To enable it for an user screen, select an arbitrary screen. If the "Screen List" window is closed, select "View/Project"->"Screen List" on the menu bar.	

Operation		Display (screen name)
[Switch setting]	g) Click the [Keys] button.  h) Allocate a switch operation to an External Key (n) in the "Keys" list pressing the [Add] button. Refer to Setting of function key below.	The "Keys Scr. Common" window appears.

Caution on setting of "Output Indicator"

1. The contents of "Output Indicator" you have set are not displayed on the screen.
2. The setting of "Output Indicator" is valid only in the F920GOT-K, F930GOT-K and Handy GOT. Never set it in any other series.
3. Set "Output Indicator" only on the common screen. Even if it is set on a user screen, it does not function.
4. Make sure that the bit device assigned on the "Output Indicator" dialog box is not included in the bit device range in set "View/Project"->"System Settings"->"Interface Devices".

Function key setting procedure and cautions

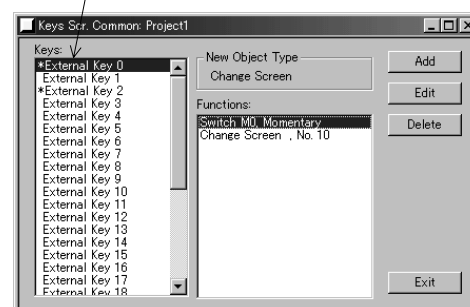
The switch operations can be set to devices (external keys 0 to 7) corresponding to F1 to F8. The setting method and operations are the same as 'function allocation' for touch keys, however, note that no key code setting is available.

Table of function key allocation

DU/WIN	F920GOT-K	F930GOT-K
External Key 0	F1	F1
External Key 1	F2	F2
External Key 2	F3	F3
External Key 3	F4	F4
External Key 4	F5	F5
External Key 5	F6	F6
External Key 6	Cannot be used	F7
External Key 7	Cannot be used	F8

Screen of DU/WIN

"*" mark indicates switch operation has already allocated.



MEMO